



**CONESTOGA-ROVERS**  
& ASSOCIATES

8615 W. Bryn Mawr Avenue, Chicago, Illinois 60631-3501  
Telephone: 773-380-9933 Facsimile: 773-380-6421  
[www.CRAworld.com](http://www.CRAworld.com)

January 2, 2012

Reference No. 034891

Mr. William J. Ryan  
United States Environmental  
Protection Agency, Region V  
77 West Jackson Boulevard (SR-5J)  
Chicago, Illinois 60604-3590

**VIA E-MAIL**  
**AND**  
**U.S. MAIL**

Dear Mr. Ryan:

Re: Fall 2011 Monitoring Report  
Groundwater Monitoring Program  
Evergreen Manor  
Roscoe Township, Illinois

## **1.0 INTRODUCTION**

Pursuant to the "Consent Decree for Remedial Action and Cost Recovery" (Consent Decree) and the "2009-2010 Monitoring Report" for the Evergreen Manor Site, the information provided herein reflects the final monitoring event for this project. Specifically, in Section 4.0 (Recommendations) of the 2009-2010 Monitoring Report, the Respondents outlined the plan for future monitoring at the Site. To that end, two additional annual groundwater sampling events would be conducted, the first in the Fall of 2010 and the second in the Fall of 2011, in order to complete three consecutive years of monitoring. This report presents the results of the Fall 2011 sampling event, which CRA conducted on November 17, 2011.

The five monitoring wells sampled in the groundwater monitoring program are MW-01A, MW-03, MW-103S, MW-106S, and MW-106D<sup>1</sup>, the locations of which are presented on Figure 1. The November 17, 2011 groundwater sampling activities were performed in accordance with the RA Work Plan.

## **2.0 SUMMARY OF GROUNDWATER SAMPLING ACTIVITIES**

During the Fall 2011 annual sampling event, a groundwater sample was collected from each of the five monitoring wells. A sample summary is provided in Table 1. Prior to sampling, the monitoring wells were purged using a stainless steel submersible pump and dedicated polyethylene tubing for each well. In order to remove all stagnant water and to minimize sediment agitation, CRA placed the pump near the tops of the water columns and purged the wells using slow purging/minimal drawdown techniques.

<sup>1</sup> Consistent with U.S. EPA's May 20, 2009 approval, MW-106S and MW-106D were used in lieu of MW-105S and MW-105D for all monitoring events required by the Consent Decree and the U.S. EPA-approved RA Work Plan.

REGISTERED COMPANY FOR  
Equal  
Employment  
Opportunity Employer  
**ISO 9001**  
ENGINEERING DESIGN



January 2, 2012

2

Reference No. 034891

A minimum of three standing well volumes of groundwater was removed from each well. The volume of standing water was calculated for the 2-inch diameter monitoring wells as follows:

$$V = 0.16H$$

where:

V = volume of standing water in gallons  
H = height of the water column in the well (feet)

Stabilization parameters consisting of pH, conductivity, temperature, oxidation-reduction potential (ORP), dissolved oxygen (DO), and turbidity were measured following removal of each standing well volume and prior to sample collection. The turbidity was measured using a portable meter and the rest of the parameters were measured using a flow-through cell.

Purging continued until the parameters stabilized and the turbidity of the water declined to approximately 5 or less nephelometric turbidity units (NTU). A summary of the purging activities is provided in Table 2. The water purged from the wells was placed on the ground surface at least 15 feet away from each monitoring well.

Once the measured parameters stabilized, a groundwater sample was collected using the same pump and tubing as for purging. The collected groundwater samples were shipped via overnight courier to the project laboratory, TestAmerica Laboratories, Inc. (TestAmerica) of North Canton, Ohio, an accredited Illinois Environmental Accreditation Program (ILEAP) laboratory. TestAmerica analyzed the samples for the U.S. EPA Target Compound List (TCL) of volatile organic compounds (VOCs). Quality Assurance/Quality Control (QA/QC) samples were also collected, consisting of one duplicate sample, one rinsate blank sample, one matrix spike/matrix spike duplicate (MS/MSD) sample, and a trip blank sample placed in the shipping cooler. A sample summary is provided in Table 1.

A copy of the TestAmerica analytical report is provided in Attachment A. The analytical data were validated by a CRA chemist and were found to be acceptable and suitable for their intended use. A copy of the resultant data validation report is provided in Attachment B.

### **3.0 ANALYTICAL RESULTS AND DISCUSSION**

A summary of the detected groundwater analytical data for the Fall 2011 sampling event, along with the data collected since 2009, are provided in Table 3. The data are also presented graphically on Figure 2. Three VOCs were detected in the groundwater samples: tetrachloroethene (PCE); 1,1,1-trichloroethane (1,1,1-TCA); and trichloroethene (TCE). None of the detected concentrations exceeded the applicable 'Cleanup Standards for Groundwater', which are equal to the U.S. EPA's Maximum Contaminant Levels (MCLs). Moreover, of the



**CONESTOGA-ROVERS  
& ASSOCIATES**

January 2, 2012

3

Reference No. 034891

analytes historically detected, observed concentrations from the November 2011 monitoring event were generally lower than from the preceding events conducted in 2009 and 2010.

The analytical data for the Fall 2011 sampling event are consistent with the results presented by the Remedial Design Report (CRA, 2006). A comprehensive summary of the historical VOC data for the five monitoring wells (and also for former wells MW-105S and MW-105D) is provided in Table 4. These data demonstrate that the 2002 sampling event was the last event in which marginal exceedences of the applicable cleanup standards were detected in any groundwater samples. The analytical data collected since 2005 continue to indicate the following: 1) a declining trend in the contaminant concentrations and, importantly, 2) that a groundwater plume and associated boundaries does not exist. Therefore, the data continue to document that the remedy is protective of human health and the environment.

#### **4.0 RECOMMENDATIONS**

In accordance with Appendix B of the Consent Decree (the RA Work Plan), and as discussed in Section 4.0 of the 2009-2010 Monitoring Report, the Fall 2011 monitoring event was the last sampling event to be conducted, in order to complete three consecutive years of monitoring. Since the results of the Fall 2011 annual sampling event remain consistent with the recent previous events, i.e., all of the detected concentrations being below the applicable cleanup standards, a No Further Remedial Action Planned (NFRAP) determination is warranted and requested. As such, a combined 'Final Certification and Completion Report' (FCCR) will be prepared in accordance with the requirements of the Consent Decree, and will be submitted to U.S. EPA for its review. The FCCR will summarize the current Site conditions and the basis for determining that the work is complete.

If you have any questions regarding the information presented in this annual report, please do not hesitate to contact me at (773) 380-9234.

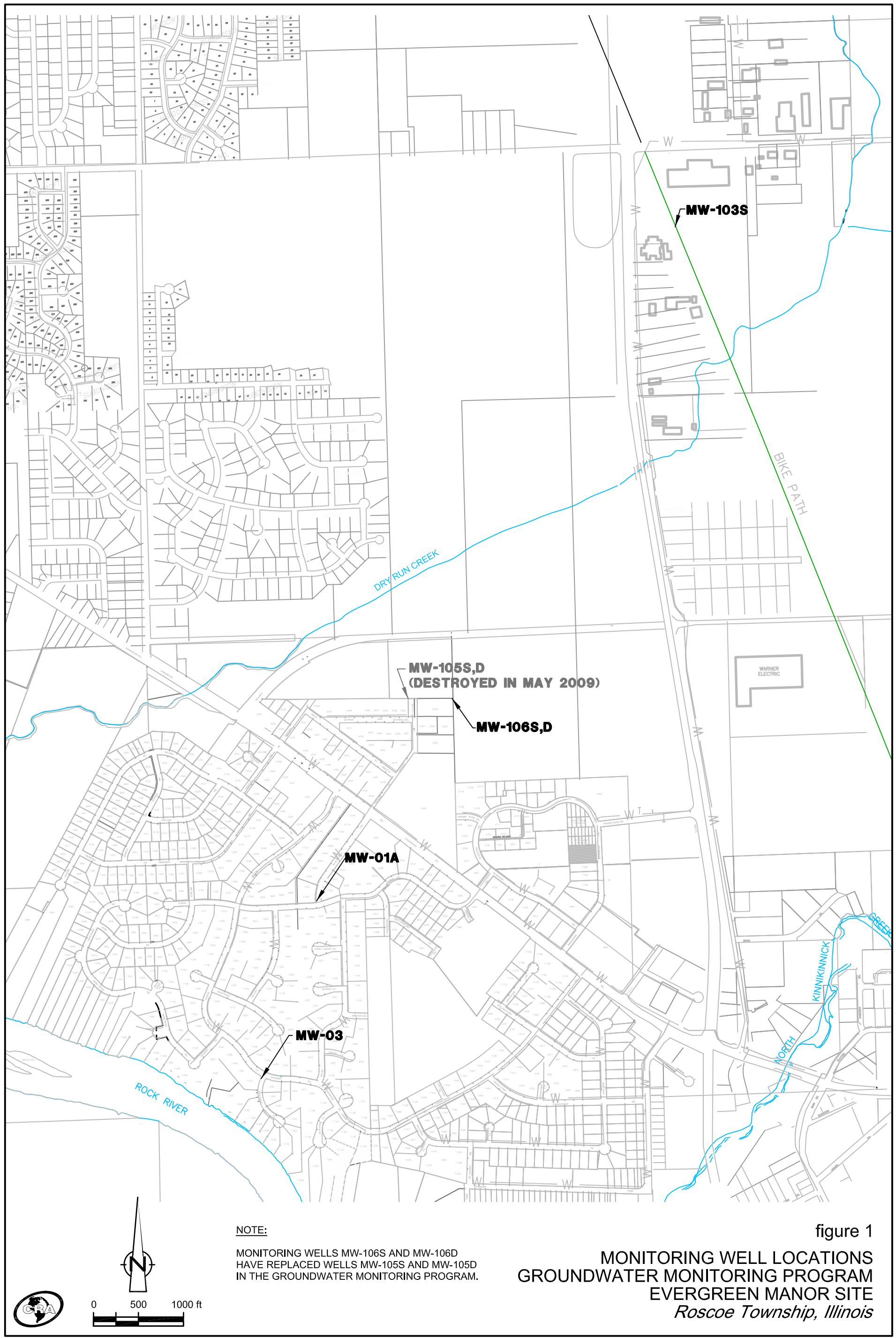
Yours truly,

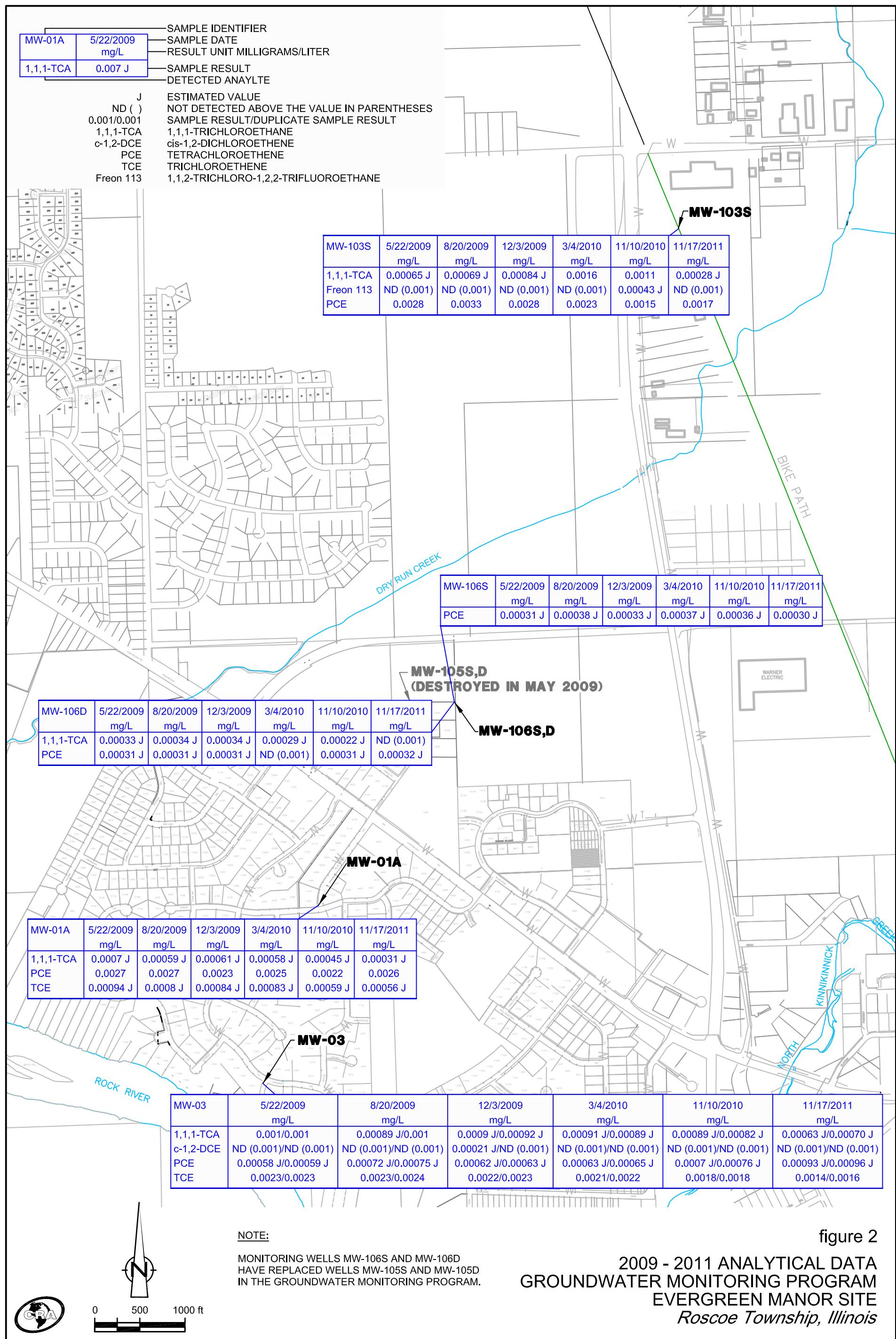
CONESTOGA-ROVERS & ASSOCIATES

A handwritten signature in black ink, appearing to read 'Bruce Clegg'. It is written in a cursive style with a large, stylized initial 'B' and 'C'.

BCC/ko/31  
Attachments

c.c.: Winnebago County Health Department  
Winnebago County Regional Planning and Economic Development Department  
Erin Rednour, Illinois EPA





**TABLE 1**  
**SAMPLE SUMMARY - NOVEMBER 2011**  
**GROUNDWATER MONITORING PROGRAM**  
**EVERGREEN MANOR SITE**  
**ROSCOE TOWNSHIP, ILLINOIS**

<i>CRA Sample Number</i>	<i>Sample Matrix</i>	<i>Sample Location</i>	<i>QA/QC</i> <sup>1</sup>	<i>Date Collected</i>	<i>Analyses</i>
GW-111711-JK-85	Groundwater	MW-103S	--	11/17/11	VOC <sup>2</sup>
GW-111711-JK-86	Groundwater	MW-106D	MS/MSD <sup>3</sup>	11/17/11	VOC
GW-111711-JK-87	Groundwater	MW-106S	--	11/17/11	VOC
GW-111711-JK-88	Water	--	Rinsate Blank	11/17/11	VOC
GW-111711-JK-89	Groundwater	MW-01A	--	11/17/11	VOC
GW-111711-JK-90	Groundwater	MW-03	--	11/17/11	VOC
GW-111711-JK-91	Groundwater	MW-03	Duplicate	11/17/11	VOC

<sup>1</sup> QA/QC - Quality Assurance/Quality Control

<sup>2</sup> VOC - Volatile Organic Compounds

<sup>3</sup> MS/MSD - Matrix Spike/Matrix Spike Duplicate

TABLE 2

Page 1 of 2

**MONITORING WELL PURGING SUMMARY - NOVEMBER 2011**  
**GROUNDWATER MONITORING PROGRAM**  
**EVERGREEN MANOR SITE**  
**ROSCOE TOWNSHIP, ILLINOIS**

<b>Well Identifier</b>	<b>Date</b>	<b>Well Volume (gallons)</b>	<b>Volume</b>				<b>Dissolved</b>			<b>Observations</b>
			<b>Purged (gallons)</b>	<b>pH (Std. Units)</b>	<b>Conductivity (<math>\mu\text{S}/\text{cm}</math>)<sup>1</sup></b>	<b>Temperature (°C)</b>	<b>ORP<sup>2</sup> (mV)<sup>3</sup></b>	<b>Oxygen (mg/L)<sup>4</sup></b>	<b>Turbidity (NTU)<sup>5</sup></b>	
MW-01A	11/17/11	4.0	4	6.94	728	11.7	-8.4	7.44	25	clear
			8	7.36	731	11.7	-5.3	7.61	4.7	clear
			12	7.62	734	11.6	-15	7.75	2.3	clear
			16	7.69	734	11.7	-23	7.80	3.3	clear
			20	7.77	735	11.7	-46	7.82	1.9	clear
MW-03	11/17/11	9.3	10	7.94	664	11.0	-31	5.25	17	clear
			20	8.04	664	11.0	-11	5.25	13	clear
			30	8.05	667	11.1	-32	5.27	6.1	clear
			40	8.53	669	11.1	-61	5.28	4.4	clear
			50	8.44	670	11.1	-70	5.35	3.5	clear
MW-103S	11/17/11	1.5	1.75	6.86	624	11.7	152	7.99	28	slightly cloudy
			3.5	6.89	624	11.7	144	8.02	23	slightly cloudy
			5.25	6.95	630	11.8	119	7.93	14	clear
			7	6.98	636	11.8	98	7.88	7.1	clear
			8.75	6.99	642	11.8	82	7.83	3.8	clear

TABLE 2

Page 2 of 2

**MONITORING WELL PURGING SUMMARY - NOVEMBER 2011**  
**GROUNDWATER MONITORING PROGRAM**  
**EVERGREEN MANOR SITE**  
**ROSCOE TOWNSHIP, ILLINOIS**

<b>Well Identifier</b>	<b>Date</b>	<b>Well Volume (gallons)</b>	<b>Volume</b>				<b>Dissolved</b>			<b>Observations</b>
			<b>Purged (gallons)</b>	<b>pH (Std. Units)</b>	<b>Conductivity (<math>\mu\text{S}/\text{cm}</math>)<sup>1</sup></b>	<b>Temperature (°C)</b>	<b>ORP<sup>2</sup> (mV)<sup>3</sup></b>	<b>Oxygen (mg/L)<sup>4</sup></b>	<b>Turbidity (NTU)<sup>5</sup></b>	
MW-106S	11/17/11	5.3	5.5	7.25	595	11.0	-19	5.68	50	slightly cloudy
			11	7.32	594	11.0	-1.8	5.91	9.4	clear
			16.5	7.38	595	10.9	1.0	5.92	4.7	clear
			22	7.45	594	11.0	2.8	5.94	2.8	clear
			27.5	7.52	595	11.0	2.0	5.94	2.7	clear
MW-106D	11/17/11	10.9	11	7.06	685	10.8	42	4.33	2.2	clear
			22	7.10	685	11.0	40	4.32	0.8	clear
			33	7.10	686	10.9	44	4.38	1.0	clear
			44	7.13	687	10.9	42	4.38	1.2	clear
			55	7.16	687	10.8	40	4.38	1.0	clear

<sup>1</sup> $\mu\text{S}/\text{cm}$  - microsiemens per centimeter<sup>2</sup>ORP - oxidation/reduction potential<sup>3</sup>mV - millivolts<sup>4</sup>mg/L - milligrams per liter<sup>5</sup>NTU - nephelometric turbidity units

TABLE 3

Page 1 of 5

**SUMMARY OF DETECTED GROUNDWATER ANALYTICAL DATA  
GROUNDWATER MONITORING PROGRAM  
EVERGREEN MANOR SITE  
ROSCOE TOWNSHIP, ILLINOIS**

<i>Sample Location</i>	<i>MW-01A</i>	<i>MW-01A</i>	<i>MW-01A</i>	<i>MW-01A</i>	<i>MW-01A</i>	<i>MW-01A</i>
<i>Sample Date</i>	5/22/09	8/20/09	12/3/09	3/4/10	11/10/10	11/17/11
<i>Sample Number</i>	JK-051	JL-61	JK-68	JL-75	JK-82	JK-89
<i>Cleanup</i>						
<i>Parameter</i>	<i>Units</i> <sup>1</sup> <i>Standard</i> <sup>2</sup>					
<i>Volatile Organic Compounds</i>						
cis-1,2-Dichloroethene	mg/L	0.07	ND(0.001) <sup>4</sup>	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.0027	0.0027	0.0023	0.0022
1,1,1-Trichloroethane	mg/L	0.2	0.0007 J <sup>5</sup>	0.00059 J	0.00061 J	0.00045 J
Trichloroethene	mg/L	0.005	0.00094 J	0.0008 J	0.00084 J	0.00059 J
1,1,2-Trichloro-	mg/L	NE <sup>3</sup>	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,2-trifluoroethane (Freon 113)						

TABLE 3

Page 2 of 5

**SUMMARY OF DETECTED GROUNDWATER ANALYTICAL DATA  
GROUNDWATER MONITORING PROGRAM  
EVERGREEN MANOR SITE  
ROSCOE TOWNSHIP, ILLINOIS**

<i>Sample Location</i>		<i>MW-03</i>	<i>MW-03</i>	<i>MW-03</i>	<i>MW-03</i>	<i>MW-03</i>	<i>MW-03</i>
<i>Sample Date</i>		<i>5/22/09</i>	<i>8/20/09</i>	<i>12/3/09</i>	<i>3/4/10</i>	<i>11/10/10</i>	<i>11/17/11</i>
<i>Sample Number</i>		<i>JK-055/056</i>	<i>JL-62/63</i>	<i>JK-69/70</i>	<i>JL-76/77</i>	<i>JK-83/84</i>	<i>JK-90/91</i>
<i>Cleanup</i>							
<i>Parameter</i>		<i>Units</i> <sup>1</sup> <i>Standard</i> <sup>2</sup>					
<i>Volatile Organic Compounds</i>							
cis-1,2-Dichloroethene	mg/L	0.07	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	0.00021 J/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)
Tetrachloroethene	mg/L	0.005	0.00058 J/0.00059 J <sup>6</sup>	0.00072 J/0.00075 J	0.00062 J/0.00063 J	0.00063 J/0.00065 J	0.00070 J/0.00076 J
1,1,1-Trichloroethane	mg/L	0.2	0.001/0.001	0.00089 J/0.001	0.00090 J/0.00092 J	0.00091 J/0.00089 J	0.00089 J/0.00082 J
Trichloroethene	mg/L	0.005	0.0023/0.0023	0.0023/0.0024	0.0022/0.0023	0.0021/0.0022	0.0018/0.0018
1,1,2-Trichloro-	mg/L	NE <sup>3</sup>	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)
1,2,2-trifluoroethane (Freon 113)							

TABLE 3

Page 3 of 5

**SUMMARY OF DETECTED GROUNDWATER ANALYTICAL DATA  
GROUNDWATER MONITORING PROGRAM  
EVERGREEN MANOR SITE  
ROSCOE TOWNSHIP, ILLINOIS**

<i>Sample Location</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>
<i>Sample Date</i>	5/22/09	8/20/09	12/3/09	3/4/10	11/10/10	11/17/11
<i>Sample Number</i>	JK-050	JK-57	JK-64	JL-71	JK-78	JK-85
<i>Cleanup</i>						
<i>Parameter</i>		<i>Units</i> <sup>1</sup>		<i>Standard</i> <sup>2</sup>		
<i>Volatile Organic Compounds</i>						
cis-1,2-Dichloroethene	mg/L	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.0028	0.0033	0.0028	0.0015
1,1,1-Trichloroethane	mg/L	0.2	0.00065 J	0.00069 J	0.00084 J	0.0011
Trichloroethene	mg/L	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloro-	mg/L	NE <sup>3</sup>	ND(0.001)	ND(0.001)	ND(0.001)	0.00043 J
1,2,2-trifluoroethane (Freon 113)						ND(0.001)

TABLE 3

Page 4 of 5

**SUMMARY OF DETECTED GROUNDWATER ANALYTICAL DATA  
GROUNDWATER MONITORING PROGRAM  
EVERGREEN MANOR SITE  
ROSCOE TOWNSHIP, ILLINOIS**

<i>Sample Location</i>	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>
<i>Sample Date</i>	5/22/09	8/20/09	12/3/09	3/4/10	11/10/10	11/17/11
<i>Sample Number</i>	JK-054	JL-58	JK-65	JL-73	JK-80	JK-87
<i>Cleanup</i>						
<i>Parameter</i>	<i>Units</i> <sup>1</sup> <i>Standard</i> <sup>2</sup>					
<i>Volatile Organic Compounds</i>						
cis-1,2-Dichloroethene	mg/L	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.00031 J	0.00038 J	0.00033 J	0.00036 J
1,1,1-Trichloroethane	mg/L	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichloroethene	mg/L	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloro-	mg/L	NE <sup>3</sup>	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,2-trifluoroethane (Freon 113)						

TABLE 3

Page 5 of 5

**SUMMARY OF DETECTED GROUNDWATER ANALYTICAL DATA  
GROUNDWATER MONITORING PROGRAM  
EVERGREEN MANOR SITE  
ROSCOE TOWNSHIP, ILLINOIS**

<i>Sample Location</i>	<i>MW-106D</i>	<i>MW-106D</i>	<i>MW-106D</i>	<i>MW-106D</i>	<i>MW-106D</i>	<i>MW-106D</i>
<i>Sample Date</i>	5/22/09	8/20/09	12/3/09	3/4/10	11/10/10	11/17/11
<i>Sample Number</i>	JK-053	JL-59	JK-66	JL-72	JK-79	JK-86
<i>Parameter</i>	<i>Cleanup</i>		<i>Units</i> <sup>1</sup>		<i>Standard</i> <sup>2</sup>	
<i>Volatile Organic Compounds</i>						
cis-1,2-Dichloroethene	mg/L	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.00031 J	0.00031 J	0.00031 J	0.00031 J
1,1,1-Trichloroethane	mg/L	0.2	0.00033 J	0.00034 J	0.00029 J	0.00022 J
Trichloroethene	mg/L	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloro-	mg/L	NE <sup>3</sup>	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,2-trifluoroethane (Freon 113)						

<sup>1</sup> Units as indicated in milligrams per liter (mg/L)

<sup>2</sup> Taken from Table 1 of the September 2004 "Statement of Work for Remedial Design of the Remedial Action".

<sup>3</sup> NE - not established

<sup>4</sup> ND( ) - not detected at the quantitation limit stated in parentheses

<sup>5</sup> J - estimated value

<sup>6</sup> Sample result/Duplicate sample result

TABLE 4

Page 1 of 9

**DETECTED GROUNDWATER ANALYTICAL DATA - SELECT WELLS**  
**EVERGREEN MANOR**  
**ROSCOE TOWNSHIP, ILLINOIS**

Sample Location:	<i>MW-01A</i>	<i>MW-01A</i>	<i>MW-01A</i>	<i>MW-01A</i>	<i>MW-01A</i>	<i>MW-01A</i>	<i>MW-01A</i>
Sample ID:	EM2-GMW1A-01/01DP	GW-052605-JK-026	GW-052209-JK-051	GW-082009-JL-61	GW-120309-JK-68	GW-030410-JL-75	
Sample Date:	4/16/2002	5/26/2005	5/22/2009	8/20/2009	12/3/2009		3/4/2010
<i>Cleanup</i>							
	<i>Units</i>	<i>Standard<sup>1</sup></i>					
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	ug/L <sup>2</sup>	200	2.4/2 <sup>4</sup>	1.6	0.70 J <sup>5</sup>	0.59 J	0.61 J
1,1-Dichloroethane	ug/L	NE <sup>3</sup>	0.34 J/0.34 J	ND(1.0) <sup>6</sup>	ND(1.0)	ND(1.0)	ND(1.0)
1,1-Dichloroethene	ug/L	7	0.19 J/0.16 J	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
cis-1,2-Dichloroethene	ug/L	70	1.5/1.4	0.45 J	ND(1.0)	ND(1.0)	ND(1.0)
Tetrachloroethene	ug/L	5	1.7/1.7	2.3	2.7	2.7	2.3
Trichloroethene	ug/L	5	4.7/4.4	2.8	0.94 J	0.80 J	0.84 J
1,1,2-Trichloro- 1,2,2-trifluoroethane (Freon 113)	ug/L	NE	ND(0.5)/ND(0.5)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

TABLE 4

Page 2 of 9

**DETECTED GROUNDWATER ANALYTICAL DATA - SELECT WELLS**  
**EVERGREEN MANOR**  
**ROSCOE TOWNSHIP, ILLINOIS**

Sample Location:	<i>MW-01A</i>		<i>MW-01A</i>		<i>MW-03</i>		<i>MW-03</i>		<i>MW-03</i>			
Sample ID:		<i>GW-111010-JK-82</i>		<i>GW-111711-JK-89</i>		<i>EM2-GMW3-01</i>		<i>GW-052605-JK-024/025</i>		<i>GW-052209-JK-055/056</i>		<i>GW-082009-JL-62/63</i>
Sample Date:		<i>11/10/2010</i>		<i>11/17/2011</i>		<i>4/16/2002</i>		<i>5/26/2005</i>		<i>5/22/2009</i>		<i>8/20/2009</i>
	<i>Cleanup</i>											
	<i>Units</i>	<i>Standard<sup>1</sup></i>										
<i>Volatile Organic Compounds</i>												
1,1,1-Trichloroethane	ug/L <sup>2</sup>	200	0.45 J	0.31 J		2.1		1.8/1.8		1.0/1.0		0.89 J/1.0
1,1-Dichloroethane	ug/L	NE <sup>3</sup>	ND(1.0)	ND(1.0)		0.26 J		ND(1.0)/ND(1.0)		ND(1.0)/ND(1.0)		ND(1.0)/ND(1.0)
1,1-Dichloroethene	ug/L	7	ND(1.0)	ND(1.0)		0.2 J		ND(1.0)/ND(1.0)		ND(1.0)/ND(1.0)		ND(1.0)/ND(1.0)
cis-1,2-Dichloroethene	ug/L	70	ND(1.0)	ND(1.0)		1.1		0.62 J/0.65 J		ND(1.0)/ND(1.0)		ND(1.0)/ND(1.0)
Tetrachloroethene	ug/L	5	2.2	2.6		0.1 J		0.29 J/0.25 J		0.58 J/0.59 J		0.72 J/0.75 J
Trichloroethene	ug/L	5	0.59 J	0.56 J		<u>7.2 J</u>		4.6/4.8		2.3/2.3		2.3/2.4
1,1,2-Trichloro-	ug/L	NE	ND(1.0)	ND(1.0)		ND(0.5)		ND(1.0)/ND(1.0)		ND(1.0)/ND(1.0)		ND(1.0)/ND(1.0)
1,2,2-trifluoroethane (Freon 113)												

TABLE 4

Page 3 of 9

**DETECTED GROUNDWATER ANALYTICAL DATA - SELECT WELLS**  
**EVERGREEN MANOR**  
**ROSCOE TOWNSHIP, ILLINOIS**

Sample Location:		<i>MW-03</i>	<i>MW-03</i>	<i>MW-03</i>	<i>MW-03</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>	
Sample ID:		<i>GW-120309-JK-69/70</i>	<i>GW-030410-JL-76/77</i>	<i>GW-111010-JK-83/84</i>	<i>GW-111711-JK-90/91</i>	<i>G103S</i>	<i>G103S</i>	<i>G103S</i>	
Sample Date:		12/3/2009	3/4/2010	11/10/2010	11/17/2011	3/23/1994	2/21/1995	12/1/1996	
<i>Cleanup</i>									
	<i>Units</i>	<i>Standard<sup>1</sup></i>							
<i>Volatile Organic Compounds</i>									
1,1,1-Trichloroethane	ug/L <sup>2</sup>	200	0.90 J/0.92 J	0.91 J/0.89 J	0.89 J/0.82 J	0.63 J/0.70 J	5.7	3.0	1.5
1,1-Dichloroethane	ug/L	NE <sup>3</sup>	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND	ND	ND
1,1-Dichloroethene	ug/L	7	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND	ND	ND
cis-1,2-Dichloroethene	ug/L	70	0.21 J/ND(1.0)	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND	ND	ND
Tetrachloroethene	ug/L	5	0.62 J/0.63 J	0.63 J/0.65 J	0.70 J/0.76 J	0.93 J/0.96 J	<u>17.0</u>	<u>43 J</u>	<u>8.4</u>
Trichloroethene	ug/L	5	2.2/2.3	2.1/2.2	1.8/1.8	1.4/1.6	ND	ND	ND
1,1,2-Trichloro-	ug/L	NE	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	ND(1.0)/ND(1.0)	--	--	--
1,2,2-trifluoroethane (Freon 113)									

TABLE 4

Page 4 of 9

**DETECTED GROUNDWATER ANALYTICAL DATA - SELECT WELLS**  
**EVERGREEN MANOR**  
**ROSCOE TOWNSHIP, ILLINOIS**

Sample Location:	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>
Sample ID:	<i>MW103S</i>	<i>EM2-G103S-01</i>	<i>GW-052305-JK-004/005</i>	<i>GW-052209-JK-050</i>	<i>GW-082009-JL-57</i>	<i>GW-120309-JK-64</i>	
Sample Date:	5/31/2000	4/8/2002	5/23/2005	5/22/2009	8/20/2009	12/3/2009	
<i>Cleanup</i>							
	<i>Units</i>	<i>Standard<sup>1</sup></i>					
<i>Volatile Organic Compounds</i>							
1,1,1-Trichloroethane	ug/L <sup>2</sup>	200	ND(2)	0.63	0.42 J/0.33 J	0.65 J	0.69 J
1,1-Dichloroethane	ug/L	NE <sup>3</sup>	ND(1)	ND(0.5)	ND(1.0)/ND(1.0)	ND(1.0)	ND(1.0)
1,1-Dichloroethene	ug/L	7	ND(1)	ND(0.5)	ND(1.0)/ND(1.0)	ND(1.0)	ND(1.0)
cis-1,2-Dichloroethene	ug/L	70	ND(4)	ND(0.5)	ND(1.0)/ND(1.0)	ND(1.0)	ND(1.0)
Tetrachloroethene	ug/L	5	<u>9.1</u>	<u>5.9</u>	0.94 J/0.80 J	2.8	3.3
Trichloroethene	ug/L	5	ND(1)	ND(0.5)	ND(1.0)/ND(1.0)	ND(1.0)	ND(1.0)
1,1,2-Trichloro-	ug/L	NE	2 J	ND(0.5)	ND(1.0)/ND(1.0)	ND(1.0)	ND(1.0)
1,2,2-trifluoroethane (Freon 113)							

TABLE 4

Page 5 of 9

**DETECTED GROUNDWATER ANALYTICAL DATA - SELECT WELLS**  
**EVERGREEN MANOR**  
**ROSCOE TOWNSHIP, ILLINOIS**

Sample Location:		<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-103S</i>	<i>MW-105S</i>	<i>MW-105S</i>	<i>MW-105S</i>	<i>MW-105S</i>	
Sample ID:		<i>GW-030410-JL-71</i>	<i>GW-111010-JK-78</i>	<i>GW-111711-JK-85</i>	<i>MW-105S</i>	<i>MW-105S</i>	<i>MW105S</i>	<i>EM2-G105S-01/01DP</i>	
Sample Date:		<i>3/4/2010</i>	<i>11/10/2010</i>	<i>11/17/2011</i>	<i>3/23/1994</i>	<i>2/22/1995</i>	<i>6/2/2000</i>	<i>4/8/2002</i>	
<i>Cleanup</i>									
	<i>Units</i>	<i>Standard<sup>1</sup></i>							
<i>Volatile Organic Compounds</i>									
1,1,1-Trichloroethane	ug/L <sup>2</sup>	200	1.6	1.1	0.28 J	7.5	6.0	2 J	1.9/1.8
1,1-Dichloroethane	ug/L	NE <sup>3</sup>	ND(1.0)	ND(1.0)	ND(1.0)	0.7	0.7	ND(1)	0.21 J/0.19 J
1,1-Dichloroethene	ug/L	7	ND(1.0)	ND(1.0)	ND(1.0)	--	0.8	ND(1)	ND(0.5)/ND(0.5)
cis-1,2-Dichloroethene	ug/L	70	ND(1.0)	ND(1.0)	ND(1.0)	4.7	4.0	1 J	0.47 J/0.39 J
Tetrachloroethene	ug/L	5	2.3	1.5	1.7	4.1	<u>6.0</u>	3 J	3.5/3.1
Trichloroethene	ug/L	5	ND(1.0)	ND(1.0)	ND(1.0)	<u>14</u>	<u>14</u>	2 J	1.7/1.6
1,1,2-Trichloro-	ug/L	NE	ND(1.0)	0.43 J	ND(1.0)	--	--	ND(2) UJ <sup>7</sup>	ND(0.5)/ND(0.5)
1,2,2-trifluoroethane (Freon 113)									

TABLE 4

Page 6 of 9

**DETECTED GROUNDWATER ANALYTICAL DATA - SELECT WELLS**  
**EVERGREEN MANOR**  
**ROSCOE TOWNSHIP, ILLINOIS**

Sample Location:	MW-105S	MW-105D	MW-105D	MW-105D	MW-105D	MW-105D	MW-105D
Sample ID:	GW-052505-JK-018	MW-105D	MW-105D	MW105D	MW105D-01	EM2-G105D-01	GW-052505-JK-019
Sample Date:	5/25/2005	3/23/1994	2/22/1995	6/2/2000	6/2/2000	4/8/2002	5/25/2005
	Cleanup Units	Standard <sup>1</sup>					
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	ug/L <sup>2</sup>	200	1.2	8.9	9.0	2 J	3
1,1-Dichloroethane	ug/L	NE <sup>3</sup>	ND(1.0)	1.1	1.0	ND(1)	0.39 J
1,1-Dichloroethene	ug/L	7	ND(1.0)	--	1.0	ND(1)	ND(0.5)
cis-1,2-Dichloroethene	ug/L	70	ND(1.0)	5.7	5.0	1 J	2
Tetrachloroethene	ug/L	5	3.2	3.2	4.0	3 J	4
Trichloroethene	ug/L	5	0.82 J	<u>15</u>	<u>14</u>	2 J	3
1,1,2-Trichloro- 1,2,2-trifluoroethane (Freon 113)	ug/L	NE	ND(1.0)	--	--	ND(2) UJ	--
							ND(0.5)
							ND(1.0)

TABLE 4

Page 7 of 9

**DETECTED GROUNDWATER ANALYTICAL DATA - SELECT WELLS**  
**EVERGREEN MANOR**  
**ROSCOE TOWNSHIP, ILLINOIS**

Sample Location:	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>	<i>MW-106S</i>
Sample ID:	<i>MW-106S</i>	<i>MW-106S</i>	<i>GW-052505-JK-020</i>	<i>GW-052209-JK-054</i>	<i>GW-082009-JL-58</i>	<i>GW-120309-JK-65</i>	<i>GW-120309-JK-65</i>	<i>GW-030410-JL-73</i>
Sample Date:	3/24/1994	2/22/1995	5/25/2005	5/22/2009	8/20/2009	12/3/2009	3/4/2010	
	<i>Cleanup</i>			<th></th> <th></th> <th></th> <th></th>				
	<i>Units</i>	<i>Standard<sup>1</sup></i>						
<b>Volatile Organic Compounds</b>								
1,1,1-Trichloroethane	ug/L <sup>2</sup>	200	1.0	8.8	0.21 J	ND(1.0)	ND(1.0)	ND(1.0)
1,1-Dichloroethane	ug/L	NE <sup>3</sup>	--	--	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
1,1-Dichloroethene	ug/L	7	--	--	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
cis-1,2-Dichloroethene	ug/L	70	--	--	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Tetrachloroethene	ug/L	5	0.2	ND	0.48 J	0.31 J	0.38 J	0.37 J
Trichloroethene	ug/L	5	2.9	3.0	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
1,1,2-Trichloro- 1,2,2-trifluoroethane (Freon 113)	ug/L	NE	--	--	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

TABLE 4

Page 8 of 9

**DETECTED GROUNDWATER ANALYTICAL DATA - SELECT WELLS**  
**EVERGREEN MANOR**  
**ROSCOE TOWNSHIP, ILLINOIS**

Sample Location:		MW-106S	MW-106S	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D
Sample ID:		GW-111010-JK-80	GW-111711-JK-87	MW-106D	MW-106D	GW-052505-JK-021	GW-052209-JK-053	GW-082009-JL-59
Sample Date:		11/10/2010	11/17/2011	3/24/1994	2/22/1995	5/25/2005	5/22/2009	8/20/2009
<i>Cleanup</i>								
	Units	Standard <sup>1</sup>						
<i>Volatile Organic Compounds</i>								
1,1,1-Trichloroethane	ug/L <sup>2</sup>	200	ND(1.0)	ND(1.0)	2.0	--	0.57 J	0.33 J
1,1-Dichloroethane	ug/L	NE <sup>3</sup>	ND(1.0)	ND(1.0)	--	--	ND(1.0)	ND(1.0)
1,1-Dichloroethene	ug/L	7	ND(1.0)	ND(1.0)	--	--	ND(1.0)	ND(1.0)
cis-1,2-Dichloroethene	ug/L	70	ND(1.0)	ND(1.0)	--	0.6 J	ND(1.0)	ND(1.0)
Tetrachloroethene	ug/L	5	0.36 J	0.30 J	ND	0.4 J	0.40 J	0.31 J
Trichloroethene	ug/L	5	ND(1.0)	ND(1.0)	2.5	3.0	ND(1.0)	ND(1.0)
1,1,2-Trichloro- 1,2,2-trifluoroethane (Freon 113)	ug/L	NE	ND(1.0)	ND(1.0)	--	--	ND(1.0)	ND(1.0)

TABLE 4

Page 9 of 9

**DETECTED GROUNDWATER ANALYTICAL DATA - SELECT WELLS**  
**EVERGREEN MANOR**  
**ROSCOE TOWNSHIP, ILLINOIS**

Sample Location:	<i>MW-106D</i>	<i>MW-106D</i>	<i>MW-106D</i>	<i>MW-106D</i>
Sample ID:	<i>GW-120309-JK-66</i>	<i>GW-030410-JL-72</i>	<i>GW-111010-JK-79</i>	<i>GW-111711-JK-86</i>
Sample Date:	<i>12/3/2009</i>	<i>3/4/2010</i>	<i>11/10/2010</i>	<i>11/17/2011</i>
<i>Cleanup</i>				
	<i>Units</i>	<i>Standard<sup>1</sup></i>		
<b>Volatile Organic Compounds</b>				
1,1,1-Trichloroethane	ug/L <sup>2</sup>	200	0.34 J	0.22 J
1,1-Dichloroethane	ug/L	NE <sup>3</sup>	ND(1.0)	ND(1.0)
1,1-Dichloroethene	ug/L	7	ND(1.0)	ND(1.0)
cis-1,2-Dichloroethene	ug/L	70	ND(1.0)	ND(1.0)
Tetrachloroethene	ug/L	5	0.31 J	0.31 J
Trichloroethene	ug/L	5	ND(1.0)	ND(1.0)
1,1,2-Trichloro-	ug/L	NE	ND(1.0)	ND(1.0)
1,2,2-trifluoroethane (Freon 113)				

**Bold and underlined** indicates an exceedence of the applicable cleanup standard.

<sup>1</sup> Taken from Table 1 of the September 2004 "Statement of Work for Remedial Design of the Remedial Action".

<sup>2</sup> ug/L - micrograms per liter

<sup>3</sup> NE - Not established

<sup>4</sup> Sample result/Duplicate sample result

<sup>5</sup> J - estimated value

<sup>6</sup> ND( ) - not detected above the quantitation limit stated in parentheses

<sup>7</sup> UJ - estimated quantitation limit

ATTACHMENT A

TESTAMERICA LABORATORY ANALYTICAL REPORT

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica North Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-6075-1

Client Project/Site: 34891 EVERGREEN MANOR

For:

Conestoga-Rovers & Associates, Inc.

11002 East 51st Street

Tulsa, Oklahoma 74146

Attn: Ms. Julie Czech



Authorized for release by:

11/29/2011 9:49:16 AM

Amy McCormick

Project Manager II

[amy.mccormick@testamericainc.com](mailto:amy.mccormick@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?

 Ask  
The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions/Glossary .....	3
Case Narrative .....	4
Method Summary .....	6
Sample Summary .....	7
Detection Summary .....	8
Client Sample Results .....	9
Surrogate Summary .....	25
QC Sample Results .....	26
QC Association Summary .....	31
Lab Chronicle .....	32
Certification Summary .....	34
Chain of Custody .....	35
Receipt Checklists .....	38

## Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits

### Glossary

#### Abbreviation These commonly used abbreviations may or may not be present in this report.

☒	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

### Job ID: 240-6075-1

Laboratory: TestAmerica North Canton

Narrative

## CASE NARRATIVE

**Client: Conestoga-Rovers & Associates, Inc.**

**Project: 34891 EVERGREEN MANOR**

**Report Number: 240-6075-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### RECEIPT

The samples were received on 11/18/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.4 C.

### VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GW-111711-JK-85 (240-6075-1), GW-111711-JK-86 (240-6075-2), GW-111711-JK-87 (240-6075-3), GW-111711-JK-88 (240-6075-4), GW-111711-JK-89 (240-6075-5), GW-111711-JK-90 (240-6075-6), GW-111711-JK-91 (240-6075-7) and TRIP BLANK (240-6075-8) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/28/2011.

Methylene Chloride was detected in method blank MB 240-24666/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Chloroform failed the recovery criteria high for the MS of sample GW-111711-JK-86 MS (240-6075-2) in batch 240-24666.

Refer to the QC report for details.

No other difficulties were encountered during the VOCs analyses.

## Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

### **Job ID: 240-6075-1 (Continued)**

#### **Laboratory: TestAmerica North Canton (Continued)**

All other quality control parameters were within the acceptance limits.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

## Method Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

## Sample Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-6075-1	GW-111711-JK-85	Water	11/17/11 09:30	11/18/11 09:15
240-6075-2	GW-111711-JK-86	Water	11/17/11 11:10	11/18/11 09:15
240-6075-3	GW-111711-JK-87	Water	11/17/11 11:55	11/18/11 09:15
240-6075-4	GW-111711-JK-88	Water	11/17/11 12:05	11/18/11 09:15
240-6075-5	GW-111711-JK-89	Water	11/17/11 13:55	11/18/11 09:15
240-6075-6	GW-111711-JK-90	Water	11/17/11 15:00	11/18/11 09:15
240-6075-7	GW-111711-JK-91	Water	11/17/11 15:10	11/18/11 09:15
240-6075-8	TRIP BLANK	Water	11/17/11 00:00	11/18/11 09:15

## Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

### Client Sample ID: GW-111711-JK-85

### Lab Sample ID: 240-6075-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.7		1.0	0.29	ug/L	1		8260B	Total/NA
1,1,1-Trichloroethane	0.28	J	1.0	0.22	ug/L	1		8260B	Total/NA

### Client Sample ID: GW-111711-JK-86

### Lab Sample ID: 240-6075-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.32	J	1.0	0.29	ug/L	1		8260B	Total/NA

### Client Sample ID: GW-111711-JK-87

### Lab Sample ID: 240-6075-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.30	J	1.0	0.29	ug/L	1		8260B	Total/NA

### Client Sample ID: GW-111711-JK-88

### Lab Sample ID: 240-6075-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.72	J	1.0	0.16	ug/L	1		8260B	Total/NA

### Client Sample ID: GW-111711-JK-89

### Lab Sample ID: 240-6075-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.6		1.0	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	0.56	J	1.0	0.17	ug/L	1		8260B	Total/NA
1,1,1-Trichloroethane	0.31	J	1.0	0.22	ug/L	1		8260B	Total/NA

### Client Sample ID: GW-111711-JK-90

### Lab Sample ID: 240-6075-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.93	J	1.0	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	1.4		1.0	0.17	ug/L	1		8260B	Total/NA
1,1,1-Trichloroethane	0.63	J	1.0	0.22	ug/L	1		8260B	Total/NA

### Client Sample ID: GW-111711-JK-91

### Lab Sample ID: 240-6075-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.96	J	1.0	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	1.6		1.0	0.17	ug/L	1		8260B	Total/NA
1,1,1-Trichloroethane	0.70	J	1.0	0.22	ug/L	1		8260B	Total/NA

### Client Sample ID: TRIP BLANK

### Lab Sample ID: 240-6075-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.9	J	10	1.1	ug/L	1		8260B	Total/NA
Methylene Chloride	0.58	J B	1.0	0.33	ug/L	1		8260B	Total/NA

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-85**

**Lab Sample ID: 240-6075-1**

**Matrix: Water**

**Date Collected: 11/17/11 09:30**

**Date Received: 11/18/11 09:15**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.1	ug/L			11/28/11 00:34	1
Benzene	ND		1.0	0.13	ug/L			11/28/11 00:34	1
Bromodichloromethane	ND		1.0	0.15	ug/L			11/28/11 00:34	1
Bromoform	ND		1.0	0.64	ug/L			11/28/11 00:34	1
Bromomethane	ND		1.0	0.41	ug/L			11/28/11 00:34	1
2-Butanone (MEK)	ND		10	0.57	ug/L			11/28/11 00:34	1
Carbon disulfide	ND		1.0	0.13	ug/L			11/28/11 00:34	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			11/28/11 00:34	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/28/11 00:34	1
Chloroethane	ND		1.0	0.29	ug/L			11/28/11 00:34	1
Chloroform	ND		1.0	0.16	ug/L			11/28/11 00:34	1
Chloromethane	ND		1.0	0.30	ug/L			11/28/11 00:34	1
1,1-Dichloroethane	ND		1.0	0.15	ug/L			11/28/11 00:34	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			11/28/11 00:34	1
1,1-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 00:34	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			11/28/11 00:34	1
cis-1,3-Dichloropropene	ND		1.0	0.14	ug/L			11/28/11 00:34	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			11/28/11 00:34	1
Ethylbenzene	ND		1.0	0.17	ug/L			11/28/11 00:34	1
2-Hexanone	ND		10	0.41	ug/L			11/28/11 00:34	1
Methylene Chloride	ND		1.0	0.33	ug/L			11/28/11 00:34	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.32	ug/L			11/28/11 00:34	1
Styrene	ND		1.0	0.11	ug/L			11/28/11 00:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.18	ug/L			11/28/11 00:34	1
<b>Tetrachloroethene</b>	<b>1.7</b>		1.0	0.29	ug/L			11/28/11 00:34	1
Toluene	ND		1.0	0.13	ug/L			11/28/11 00:34	1
Trichloroethene	ND		1.0	0.17	ug/L			11/28/11 00:34	1
Vinyl chloride	ND		1.0	0.22	ug/L			11/28/11 00:34	1
Xylenes, Total	ND		2.0	0.28	ug/L			11/28/11 00:34	1
<b>1,1,1-Trichloroethane</b>	<b>0.28 J</b>		1.0	0.22	ug/L			11/28/11 00:34	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/28/11 00:34	1
Cyclohexane	ND		1.0	0.12	ug/L			11/28/11 00:34	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.67	ug/L			11/28/11 00:34	1
1,2-Dibromoethane	ND		1.0	0.24	ug/L			11/28/11 00:34	1
Dichlorodifluoromethane	ND		1.0	0.31	ug/L			11/28/11 00:34	1
cis-1,2-Dichloroethene	ND		1.0	0.17	ug/L			11/28/11 00:34	1
trans-1,2-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 00:34	1
Isopropylbenzene	ND		1.0	0.13	ug/L			11/28/11 00:34	1
Methyl acetate	ND		10	0.38	ug/L			11/28/11 00:34	1
Methyl tert-butyl ether	ND		5.0	0.17	ug/L			11/28/11 00:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.28	ug/L			11/28/11 00:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.15	ug/L			11/28/11 00:34	1
1,2-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 00:34	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			11/28/11 00:34	1
1,4-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 00:34	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/28/11 00:34	1
Dibromochloromethane	ND		1.0	0.18	ug/L			11/28/11 00:34	1
Methylcyclohexane	ND		1.0	0.13	ug/L			11/28/11 00:34	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-85**  
**Date Collected: 11/17/11 09:30**  
**Date Received: 11/18/11 09:15**

**Lab Sample ID: 240-6075-1**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		63 - 129		11/28/11 00:34	1
4-Bromofluorobenzene (Surr)	86		66 - 117		11/28/11 00:34	1
Toluene-d8 (Surr)	104		74 - 115		11/28/11 00:34	1
Dibromofluoromethane (Surr)	116		75 - 121		11/28/11 00:34	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-86**

**Lab Sample ID: 240-6075-2**

**Matrix: Water**

**Date Collected: 11/17/11 11:10**

**Date Received: 11/18/11 09:15**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.1	ug/L			11/28/11 00:56	1
Benzene	ND		1.0	0.13	ug/L			11/28/11 00:56	1
Bromodichloromethane	ND		1.0	0.15	ug/L			11/28/11 00:56	1
Bromoform	ND		1.0	0.64	ug/L			11/28/11 00:56	1
Bromomethane	ND		1.0	0.41	ug/L			11/28/11 00:56	1
2-Butanone (MEK)	ND		10	0.57	ug/L			11/28/11 00:56	1
Carbon disulfide	ND		1.0	0.13	ug/L			11/28/11 00:56	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			11/28/11 00:56	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/28/11 00:56	1
Chloroethane	ND		1.0	0.29	ug/L			11/28/11 00:56	1
Chloroform	ND		1.0	0.16	ug/L			11/28/11 00:56	1
Chloromethane	ND		1.0	0.30	ug/L			11/28/11 00:56	1
1,1-Dichloroethane	ND		1.0	0.15	ug/L			11/28/11 00:56	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			11/28/11 00:56	1
1,1-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 00:56	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			11/28/11 00:56	1
cis-1,3-Dichloropropene	ND		1.0	0.14	ug/L			11/28/11 00:56	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			11/28/11 00:56	1
Ethylbenzene	ND		1.0	0.17	ug/L			11/28/11 00:56	1
2-Hexanone	ND		10	0.41	ug/L			11/28/11 00:56	1
Methylene Chloride	ND		1.0	0.33	ug/L			11/28/11 00:56	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.32	ug/L			11/28/11 00:56	1
Styrene	ND		1.0	0.11	ug/L			11/28/11 00:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.18	ug/L			11/28/11 00:56	1
<b>Tetrachloroethene</b>	<b>0.32</b>	<b>J</b>	1.0	0.29	ug/L			11/28/11 00:56	1
Toluene	ND		1.0	0.13	ug/L			11/28/11 00:56	1
Trichloroethene	ND		1.0	0.17	ug/L			11/28/11 00:56	1
Vinyl chloride	ND		1.0	0.22	ug/L			11/28/11 00:56	1
Xylenes, Total	ND		2.0	0.28	ug/L			11/28/11 00:56	1
1,1,1-Trichloroethane	ND		1.0	0.22	ug/L			11/28/11 00:56	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/28/11 00:56	1
Cyclohexane	ND		1.0	0.12	ug/L			11/28/11 00:56	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.67	ug/L			11/28/11 00:56	1
1,2-Dibromoethane	ND		1.0	0.24	ug/L			11/28/11 00:56	1
Dichlorodifluoromethane	ND		1.0	0.31	ug/L			11/28/11 00:56	1
cis-1,2-Dichloroethene	ND		1.0	0.17	ug/L			11/28/11 00:56	1
trans-1,2-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 00:56	1
Isopropylbenzene	ND		1.0	0.13	ug/L			11/28/11 00:56	1
Methyl acetate	ND		10	0.38	ug/L			11/28/11 00:56	1
Methyl tert-butyl ether	ND		5.0	0.17	ug/L			11/28/11 00:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.28	ug/L			11/28/11 00:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.15	ug/L			11/28/11 00:56	1
1,2-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 00:56	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			11/28/11 00:56	1
1,4-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 00:56	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/28/11 00:56	1
Dibromochloromethane	ND		1.0	0.18	ug/L			11/28/11 00:56	1
Methylcyclohexane	ND		1.0	0.13	ug/L			11/28/11 00:56	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-86**  
**Date Collected: 11/17/11 11:10**  
**Date Received: 11/18/11 09:15**

**Lab Sample ID: 240-6075-2**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		63 - 129		11/28/11 00:56	1
4-Bromofluorobenzene (Surr)	82		66 - 117		11/28/11 00:56	1
Toluene-d8 (Surr)	100		74 - 115		11/28/11 00:56	1
Dibromofluoromethane (Surr)	112		75 - 121		11/28/11 00:56	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-87**

**Lab Sample ID: 240-6075-3**

**Matrix: Water**

**Date Collected: 11/17/11 11:55**

**Date Received: 11/18/11 09:15**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.1	ug/L			11/28/11 02:21	1
Benzene	ND		1.0	0.13	ug/L			11/28/11 02:21	1
Bromodichloromethane	ND		1.0	0.15	ug/L			11/28/11 02:21	1
Bromoform	ND		1.0	0.64	ug/L			11/28/11 02:21	1
Bromomethane	ND		1.0	0.41	ug/L			11/28/11 02:21	1
2-Butanone (MEK)	ND		10	0.57	ug/L			11/28/11 02:21	1
Carbon disulfide	ND		1.0	0.13	ug/L			11/28/11 02:21	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			11/28/11 02:21	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/28/11 02:21	1
Chloroethane	ND		1.0	0.29	ug/L			11/28/11 02:21	1
Chloroform	ND		1.0	0.16	ug/L			11/28/11 02:21	1
Chloromethane	ND		1.0	0.30	ug/L			11/28/11 02:21	1
1,1-Dichloroethane	ND		1.0	0.15	ug/L			11/28/11 02:21	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			11/28/11 02:21	1
1,1-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 02:21	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			11/28/11 02:21	1
cis-1,3-Dichloropropene	ND		1.0	0.14	ug/L			11/28/11 02:21	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			11/28/11 02:21	1
Ethylbenzene	ND		1.0	0.17	ug/L			11/28/11 02:21	1
2-Hexanone	ND		10	0.41	ug/L			11/28/11 02:21	1
Methylene Chloride	ND		1.0	0.33	ug/L			11/28/11 02:21	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.32	ug/L			11/28/11 02:21	1
Styrene	ND		1.0	0.11	ug/L			11/28/11 02:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.18	ug/L			11/28/11 02:21	1
<b>Tetrachloroethene</b>	<b>0.30</b>	<b>J</b>	1.0	0.29	ug/L			11/28/11 02:21	1
Toluene	ND		1.0	0.13	ug/L			11/28/11 02:21	1
Trichloroethene	ND		1.0	0.17	ug/L			11/28/11 02:21	1
Vinyl chloride	ND		1.0	0.22	ug/L			11/28/11 02:21	1
Xylenes, Total	ND		2.0	0.28	ug/L			11/28/11 02:21	1
1,1,1-Trichloroethane	ND		1.0	0.22	ug/L			11/28/11 02:21	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/28/11 02:21	1
Cyclohexane	ND		1.0	0.12	ug/L			11/28/11 02:21	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.67	ug/L			11/28/11 02:21	1
1,2-Dibromoethane	ND		1.0	0.24	ug/L			11/28/11 02:21	1
Dichlorodifluoromethane	ND		1.0	0.31	ug/L			11/28/11 02:21	1
cis-1,2-Dichloroethene	ND		1.0	0.17	ug/L			11/28/11 02:21	1
trans-1,2-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 02:21	1
Isopropylbenzene	ND		1.0	0.13	ug/L			11/28/11 02:21	1
Methyl acetate	ND		10	0.38	ug/L			11/28/11 02:21	1
Methyl tert-butyl ether	ND		5.0	0.17	ug/L			11/28/11 02:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.28	ug/L			11/28/11 02:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.15	ug/L			11/28/11 02:21	1
1,2-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 02:21	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			11/28/11 02:21	1
1,4-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 02:21	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/28/11 02:21	1
Dibromochloromethane	ND		1.0	0.18	ug/L			11/28/11 02:21	1
Methylcyclohexane	ND		1.0	0.13	ug/L			11/28/11 02:21	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-87**  
**Date Collected: 11/17/11 11:55**  
**Date Received: 11/18/11 09:15**

**Lab Sample ID: 240-6075-3**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		63 - 129		11/28/11 02:21	1
4-Bromofluorobenzene (Surr)	85		66 - 117		11/28/11 02:21	1
Toluene-d8 (Surr)	104		74 - 115		11/28/11 02:21	1
Dibromofluoromethane (Surr)	111		75 - 121		11/28/11 02:21	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-88**

**Lab Sample ID: 240-6075-4**

**Matrix: Water**

**Date Collected: 11/17/11 12:05**

**Date Received: 11/18/11 09:15**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.1	ug/L			11/28/11 02:42	1
Benzene	ND		1.0	0.13	ug/L			11/28/11 02:42	1
Bromodichloromethane	ND		1.0	0.15	ug/L			11/28/11 02:42	1
Bromoform	ND		1.0	0.64	ug/L			11/28/11 02:42	1
Bromomethane	ND		1.0	0.41	ug/L			11/28/11 02:42	1
2-Butanone (MEK)	ND		10	0.57	ug/L			11/28/11 02:42	1
Carbon disulfide	ND		1.0	0.13	ug/L			11/28/11 02:42	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			11/28/11 02:42	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/28/11 02:42	1
Chloroethane	ND		1.0	0.29	ug/L			11/28/11 02:42	1
<b>Chloroform</b>	<b>0.72 J</b>		1.0	0.16	ug/L			11/28/11 02:42	1
Chloromethane	ND		1.0	0.30	ug/L			11/28/11 02:42	1
1,1-Dichloroethane	ND		1.0	0.15	ug/L			11/28/11 02:42	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			11/28/11 02:42	1
1,1-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 02:42	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			11/28/11 02:42	1
cis-1,3-Dichloropropene	ND		1.0	0.14	ug/L			11/28/11 02:42	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			11/28/11 02:42	1
Ethylbenzene	ND		1.0	0.17	ug/L			11/28/11 02:42	1
2-Hexanone	ND		10	0.41	ug/L			11/28/11 02:42	1
Methylene Chloride	ND		1.0	0.33	ug/L			11/28/11 02:42	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.32	ug/L			11/28/11 02:42	1
Styrene	ND		1.0	0.11	ug/L			11/28/11 02:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.18	ug/L			11/28/11 02:42	1
Tetrachloroethene	ND		1.0	0.29	ug/L			11/28/11 02:42	1
Toluene	ND		1.0	0.13	ug/L			11/28/11 02:42	1
Trichloroethene	ND		1.0	0.17	ug/L			11/28/11 02:42	1
Vinyl chloride	ND		1.0	0.22	ug/L			11/28/11 02:42	1
Xylenes, Total	ND		2.0	0.28	ug/L			11/28/11 02:42	1
1,1,1-Trichloroethane	ND		1.0	0.22	ug/L			11/28/11 02:42	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/28/11 02:42	1
Cyclohexane	ND		1.0	0.12	ug/L			11/28/11 02:42	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.67	ug/L			11/28/11 02:42	1
1,2-Dibromoethane	ND		1.0	0.24	ug/L			11/28/11 02:42	1
Dichlorodifluoromethane	ND		1.0	0.31	ug/L			11/28/11 02:42	1
cis-1,2-Dichloroethene	ND		1.0	0.17	ug/L			11/28/11 02:42	1
trans-1,2-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 02:42	1
Isopropylbenzene	ND		1.0	0.13	ug/L			11/28/11 02:42	1
Methyl acetate	ND		10	0.38	ug/L			11/28/11 02:42	1
Methyl tert-butyl ether	ND		5.0	0.17	ug/L			11/28/11 02:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.28	ug/L			11/28/11 02:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.15	ug/L			11/28/11 02:42	1
1,2-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 02:42	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			11/28/11 02:42	1
1,4-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 02:42	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/28/11 02:42	1
Dibromochloromethane	ND		1.0	0.18	ug/L			11/28/11 02:42	1
Methylcyclohexane	ND		1.0	0.13	ug/L			11/28/11 02:42	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-88**  
**Date Collected: 11/17/11 12:05**  
**Date Received: 11/18/11 09:15**

**Lab Sample ID: 240-6075-4**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		63 - 129		11/28/11 02:42	1
4-Bromofluorobenzene (Surr)	85		66 - 117		11/28/11 02:42	1
Toluene-d8 (Surr)	102		74 - 115		11/28/11 02:42	1
Dibromofluoromethane (Surr)	112		75 - 121		11/28/11 02:42	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-89**

**Lab Sample ID: 240-6075-5**

**Matrix: Water**

**Date Collected: 11/17/11 13:55**

**Date Received: 11/18/11 09:15**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.1	ug/L			11/28/11 03:04	1
Benzene	ND		1.0	0.13	ug/L			11/28/11 03:04	1
Bromodichloromethane	ND		1.0	0.15	ug/L			11/28/11 03:04	1
Bromoform	ND		1.0	0.64	ug/L			11/28/11 03:04	1
Bromomethane	ND		1.0	0.41	ug/L			11/28/11 03:04	1
2-Butanone (MEK)	ND		10	0.57	ug/L			11/28/11 03:04	1
Carbon disulfide	ND		1.0	0.13	ug/L			11/28/11 03:04	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			11/28/11 03:04	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/28/11 03:04	1
Chloroethane	ND		1.0	0.29	ug/L			11/28/11 03:04	1
Chloroform	ND		1.0	0.16	ug/L			11/28/11 03:04	1
Chloromethane	ND		1.0	0.30	ug/L			11/28/11 03:04	1
1,1-Dichloroethane	ND		1.0	0.15	ug/L			11/28/11 03:04	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			11/28/11 03:04	1
1,1-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 03:04	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			11/28/11 03:04	1
cis-1,3-Dichloropropene	ND		1.0	0.14	ug/L			11/28/11 03:04	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			11/28/11 03:04	1
Ethylbenzene	ND		1.0	0.17	ug/L			11/28/11 03:04	1
2-Hexanone	ND		10	0.41	ug/L			11/28/11 03:04	1
Methylene Chloride	ND		1.0	0.33	ug/L			11/28/11 03:04	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.32	ug/L			11/28/11 03:04	1
Styrene	ND		1.0	0.11	ug/L			11/28/11 03:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.18	ug/L			11/28/11 03:04	1
<b>Tetrachloroethene</b>	<b>2.6</b>		1.0	0.29	ug/L			11/28/11 03:04	1
Toluene	ND		1.0	0.13	ug/L			11/28/11 03:04	1
<b>Trichloroethene</b>	<b>0.56 J</b>		1.0	0.17	ug/L			11/28/11 03:04	1
Vinyl chloride	ND		1.0	0.22	ug/L			11/28/11 03:04	1
Xylenes, Total	ND		2.0	0.28	ug/L			11/28/11 03:04	1
<b>1,1,1-Trichloroethane</b>	<b>0.31 J</b>		1.0	0.22	ug/L			11/28/11 03:04	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/28/11 03:04	1
Cyclohexane	ND		1.0	0.12	ug/L			11/28/11 03:04	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.67	ug/L			11/28/11 03:04	1
1,2-Dibromoethane	ND		1.0	0.24	ug/L			11/28/11 03:04	1
Dichlorodifluoromethane	ND		1.0	0.31	ug/L			11/28/11 03:04	1
cis-1,2-Dichloroethene	ND		1.0	0.17	ug/L			11/28/11 03:04	1
trans-1,2-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 03:04	1
Isopropylbenzene	ND		1.0	0.13	ug/L			11/28/11 03:04	1
Methyl acetate	ND		10	0.38	ug/L			11/28/11 03:04	1
Methyl tert-butyl ether	ND		5.0	0.17	ug/L			11/28/11 03:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.28	ug/L			11/28/11 03:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.15	ug/L			11/28/11 03:04	1
1,2-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 03:04	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			11/28/11 03:04	1
1,4-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 03:04	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/28/11 03:04	1
Dibromochloromethane	ND		1.0	0.18	ug/L			11/28/11 03:04	1
Methylcyclohexane	ND		1.0	0.13	ug/L			11/28/11 03:04	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-89**  
**Date Collected: 11/17/11 13:55**  
**Date Received: 11/18/11 09:15**

**Lab Sample ID: 240-6075-5**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		63 - 129		11/28/11 03:04	1
4-Bromofluorobenzene (Surr)	86		66 - 117		11/28/11 03:04	1
Toluene-d8 (Surr)	102		74 - 115		11/28/11 03:04	1
Dibromofluoromethane (Surr)	118		75 - 121		11/28/11 03:04	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-90**

**Lab Sample ID: 240-6075-6**

**Matrix: Water**

**Date Collected: 11/17/11 15:00**

**Date Received: 11/18/11 09:15**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.1	ug/L			11/28/11 03:25	1
Benzene	ND		1.0	0.13	ug/L			11/28/11 03:25	1
Bromodichloromethane	ND		1.0	0.15	ug/L			11/28/11 03:25	1
Bromoform	ND		1.0	0.64	ug/L			11/28/11 03:25	1
Bromomethane	ND		1.0	0.41	ug/L			11/28/11 03:25	1
2-Butanone (MEK)	ND		10	0.57	ug/L			11/28/11 03:25	1
Carbon disulfide	ND		1.0	0.13	ug/L			11/28/11 03:25	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			11/28/11 03:25	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/28/11 03:25	1
Chloroethane	ND		1.0	0.29	ug/L			11/28/11 03:25	1
Chloroform	ND		1.0	0.16	ug/L			11/28/11 03:25	1
Chloromethane	ND		1.0	0.30	ug/L			11/28/11 03:25	1
1,1-Dichloroethane	ND		1.0	0.15	ug/L			11/28/11 03:25	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			11/28/11 03:25	1
1,1-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 03:25	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			11/28/11 03:25	1
cis-1,3-Dichloropropene	ND		1.0	0.14	ug/L			11/28/11 03:25	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			11/28/11 03:25	1
Ethylbenzene	ND		1.0	0.17	ug/L			11/28/11 03:25	1
2-Hexanone	ND		10	0.41	ug/L			11/28/11 03:25	1
Methylene Chloride	ND		1.0	0.33	ug/L			11/28/11 03:25	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.32	ug/L			11/28/11 03:25	1
Styrene	ND		1.0	0.11	ug/L			11/28/11 03:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.18	ug/L			11/28/11 03:25	1
<b>Tetrachloroethene</b>	<b>0.93</b>	<b>J</b>	1.0	0.29	ug/L			11/28/11 03:25	1
Toluene	ND		1.0	0.13	ug/L			11/28/11 03:25	1
<b>Trichloroethene</b>	<b>1.4</b>		1.0	0.17	ug/L			11/28/11 03:25	1
Vinyl chloride	ND		1.0	0.22	ug/L			11/28/11 03:25	1
Xylenes, Total	ND		2.0	0.28	ug/L			11/28/11 03:25	1
<b>1,1,1-Trichloroethane</b>	<b>0.63</b>	<b>J</b>	1.0	0.22	ug/L			11/28/11 03:25	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/28/11 03:25	1
Cyclohexane	ND		1.0	0.12	ug/L			11/28/11 03:25	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.67	ug/L			11/28/11 03:25	1
1,2-Dibromoethane	ND		1.0	0.24	ug/L			11/28/11 03:25	1
Dichlorodifluoromethane	ND		1.0	0.31	ug/L			11/28/11 03:25	1
cis-1,2-Dichloroethene	ND		1.0	0.17	ug/L			11/28/11 03:25	1
trans-1,2-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 03:25	1
Isopropylbenzene	ND		1.0	0.13	ug/L			11/28/11 03:25	1
Methyl acetate	ND		10	0.38	ug/L			11/28/11 03:25	1
Methyl tert-butyl ether	ND		5.0	0.17	ug/L			11/28/11 03:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.28	ug/L			11/28/11 03:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.15	ug/L			11/28/11 03:25	1
1,2-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 03:25	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			11/28/11 03:25	1
1,4-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 03:25	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/28/11 03:25	1
Dibromochloromethane	ND		1.0	0.18	ug/L			11/28/11 03:25	1
Methylcyclohexane	ND		1.0	0.13	ug/L			11/28/11 03:25	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-90**  
**Date Collected: 11/17/11 15:00**  
**Date Received: 11/18/11 09:15**

**Lab Sample ID: 240-6075-6**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		63 - 129		11/28/11 03:25	1
4-Bromofluorobenzene (Surr)	88		66 - 117		11/28/11 03:25	1
Toluene-d8 (Surr)	102		74 - 115		11/28/11 03:25	1
Dibromofluoromethane (Surr)	113		75 - 121		11/28/11 03:25	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-91**

**Lab Sample ID: 240-6075-7**

**Matrix: Water**

**Date Collected: 11/17/11 15:10**

**Date Received: 11/18/11 09:15**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.1	ug/L			11/28/11 03:47	1
Benzene	ND		1.0	0.13	ug/L			11/28/11 03:47	1
Bromodichloromethane	ND		1.0	0.15	ug/L			11/28/11 03:47	1
Bromoform	ND		1.0	0.64	ug/L			11/28/11 03:47	1
Bromomethane	ND		1.0	0.41	ug/L			11/28/11 03:47	1
2-Butanone (MEK)	ND		10	0.57	ug/L			11/28/11 03:47	1
Carbon disulfide	ND		1.0	0.13	ug/L			11/28/11 03:47	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			11/28/11 03:47	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/28/11 03:47	1
Chloroethane	ND		1.0	0.29	ug/L			11/28/11 03:47	1
Chloroform	ND		1.0	0.16	ug/L			11/28/11 03:47	1
Chloromethane	ND		1.0	0.30	ug/L			11/28/11 03:47	1
1,1-Dichloroethane	ND		1.0	0.15	ug/L			11/28/11 03:47	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			11/28/11 03:47	1
1,1-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 03:47	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			11/28/11 03:47	1
cis-1,3-Dichloropropene	ND		1.0	0.14	ug/L			11/28/11 03:47	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			11/28/11 03:47	1
Ethylbenzene	ND		1.0	0.17	ug/L			11/28/11 03:47	1
2-Hexanone	ND		10	0.41	ug/L			11/28/11 03:47	1
Methylene Chloride	ND		1.0	0.33	ug/L			11/28/11 03:47	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.32	ug/L			11/28/11 03:47	1
Styrene	ND		1.0	0.11	ug/L			11/28/11 03:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.18	ug/L			11/28/11 03:47	1
<b>Tetrachloroethene</b>	<b>0.96</b>	<b>J</b>	1.0	0.29	ug/L			11/28/11 03:47	1
Toluene	ND		1.0	0.13	ug/L			11/28/11 03:47	1
<b>Trichloroethene</b>	<b>1.6</b>		1.0	0.17	ug/L			11/28/11 03:47	1
Vinyl chloride	ND		1.0	0.22	ug/L			11/28/11 03:47	1
Xylenes, Total	ND		2.0	0.28	ug/L			11/28/11 03:47	1
<b>1,1,1-Trichloroethane</b>	<b>0.70</b>	<b>J</b>	1.0	0.22	ug/L			11/28/11 03:47	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/28/11 03:47	1
Cyclohexane	ND		1.0	0.12	ug/L			11/28/11 03:47	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.67	ug/L			11/28/11 03:47	1
1,2-Dibromoethane	ND		1.0	0.24	ug/L			11/28/11 03:47	1
Dichlorodifluoromethane	ND		1.0	0.31	ug/L			11/28/11 03:47	1
cis-1,2-Dichloroethene	ND		1.0	0.17	ug/L			11/28/11 03:47	1
trans-1,2-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 03:47	1
Isopropylbenzene	ND		1.0	0.13	ug/L			11/28/11 03:47	1
Methyl acetate	ND		10	0.38	ug/L			11/28/11 03:47	1
Methyl tert-butyl ether	ND		5.0	0.17	ug/L			11/28/11 03:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.28	ug/L			11/28/11 03:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.15	ug/L			11/28/11 03:47	1
1,2-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 03:47	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			11/28/11 03:47	1
1,4-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 03:47	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/28/11 03:47	1
Dibromochloromethane	ND		1.0	0.18	ug/L			11/28/11 03:47	1
Methylcyclohexane	ND		1.0	0.13	ug/L			11/28/11 03:47	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-91**  
**Date Collected: 11/17/11 15:10**  
**Date Received: 11/18/11 09:15**

**Lab Sample ID: 240-6075-7**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		63 - 129		11/28/11 03:47	1
4-Bromofluorobenzene (Surr)	86		66 - 117		11/28/11 03:47	1
Toluene-d8 (Surr)	103		74 - 115		11/28/11 03:47	1
Dibromofluoromethane (Surr)	116		75 - 121		11/28/11 03:47	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

## Client Sample ID: TRIP BLANK

Date Collected: 11/17/11 00:00

Date Received: 11/18/11 09:15

## Lab Sample ID: 240-6075-8

Matrix: Water

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	2.9	J	10	1.1	ug/L			11/28/11 02:00	1
Benzene	ND		1.0	0.13	ug/L			11/28/11 02:00	1
Bromodichloromethane	ND		1.0	0.15	ug/L			11/28/11 02:00	1
Bromoform	ND		1.0	0.64	ug/L			11/28/11 02:00	1
Bromomethane	ND		1.0	0.41	ug/L			11/28/11 02:00	1
2-Butanone (MEK)	ND		10	0.57	ug/L			11/28/11 02:00	1
Carbon disulfide	ND		1.0	0.13	ug/L			11/28/11 02:00	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			11/28/11 02:00	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/28/11 02:00	1
Chloroethane	ND		1.0	0.29	ug/L			11/28/11 02:00	1
Chloroform	ND		1.0	0.16	ug/L			11/28/11 02:00	1
Chloromethane	ND		1.0	0.30	ug/L			11/28/11 02:00	1
1,1-Dichloroethane	ND		1.0	0.15	ug/L			11/28/11 02:00	1
1,2-Dichloroethane	ND		1.0	0.22	ug/L			11/28/11 02:00	1
1,1-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 02:00	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			11/28/11 02:00	1
cis-1,3-Dichloropropene	ND		1.0	0.14	ug/L			11/28/11 02:00	1
trans-1,3-Dichloropropene	ND		1.0	0.19	ug/L			11/28/11 02:00	1
Ethylbenzene	ND		1.0	0.17	ug/L			11/28/11 02:00	1
2-Hexanone	ND		10	0.41	ug/L			11/28/11 02:00	1
<b>Methylene Chloride</b>	<b>0.58</b>	<b>J B</b>	1.0	0.33	ug/L			11/28/11 02:00	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.32	ug/L			11/28/11 02:00	1
Styrene	ND		1.0	0.11	ug/L			11/28/11 02:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.18	ug/L			11/28/11 02:00	1
Tetrachloroethene	ND		1.0	0.29	ug/L			11/28/11 02:00	1
Toluene	ND		1.0	0.13	ug/L			11/28/11 02:00	1
Trichloroethene	ND		1.0	0.17	ug/L			11/28/11 02:00	1
Vinyl chloride	ND		1.0	0.22	ug/L			11/28/11 02:00	1
Xylenes, Total	ND		2.0	0.28	ug/L			11/28/11 02:00	1
1,1,1-Trichloroethane	ND		1.0	0.22	ug/L			11/28/11 02:00	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			11/28/11 02:00	1
Cyclohexane	ND		1.0	0.12	ug/L			11/28/11 02:00	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.67	ug/L			11/28/11 02:00	1
1,2-Dibromoethane	ND		1.0	0.24	ug/L			11/28/11 02:00	1
Dichlorodifluoromethane	ND		1.0	0.31	ug/L			11/28/11 02:00	1
cis-1,2-Dichloroethene	ND		1.0	0.17	ug/L			11/28/11 02:00	1
trans-1,2-Dichloroethene	ND		1.0	0.19	ug/L			11/28/11 02:00	1
Isopropylbenzene	ND		1.0	0.13	ug/L			11/28/11 02:00	1
Methyl acetate	ND		10	0.38	ug/L			11/28/11 02:00	1
Methyl tert-butyl ether	ND		5.0	0.17	ug/L			11/28/11 02:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.28	ug/L			11/28/11 02:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.15	ug/L			11/28/11 02:00	1
1,2-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 02:00	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			11/28/11 02:00	1
1,4-Dichlorobenzene	ND		1.0	0.13	ug/L			11/28/11 02:00	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/28/11 02:00	1
Dibromochloromethane	ND		1.0	0.18	ug/L			11/28/11 02:00	1
Methylcyclohexane	ND		1.0	0.13	ug/L			11/28/11 02:00	1

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

## Client Sample ID: TRIP BLANK

Date Collected: 11/17/11 00:00

Date Received: 11/18/11 09:15

Lab Sample ID: 240-6075-8

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		63 - 129		11/28/11 02:00	1
4-Bromofluorobenzene (Surr)	88		66 - 117		11/28/11 02:00	1
Toluene-d8 (Surr)	101		74 - 115		11/28/11 02:00	1
Dibromofluoromethane (Surr)	109		75 - 121		11/28/11 02:00	1

# Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (63-129)	BFB (66-117)	TOL (74-115)	DBFM (75-121)
240-6075-1	GW-111711-JK-85	115	86	104	116
240-6075-2	GW-111711-JK-86	115	82	100	112
240-6075-2 MS	GW-111711-JK-86	115	105	112	110
240-6075-2 MSD	GW-111711-JK-86	110	105	110	110
240-6075-3	GW-111711-JK-87	114	85	104	111
240-6075-4	GW-111711-JK-88	112	85	102	112
240-6075-5	GW-111711-JK-89	118	86	102	118
240-6075-6	GW-111711-JK-90	114	88	102	113
240-6075-7	GW-111711-JK-91	114	86	103	116
240-6075-8	TRIP BLANK	109	88	101	109
LCS 240-24666/4	Lab Control Sample	110	99	108	103
MB 240-24666/5	Method Blank	112	90	105	110

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 240-24666/5**

**Matrix: Water**

**Analysis Batch: 24666**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	Dil Fac						
	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed
Acetone	ND		1	10	1.1	ug/L		11/27/11 23:08	
Benzene	ND		1	1.0	0.13	ug/L		11/27/11 23:08	
Bromodichloromethane	ND		1	1.0	0.15	ug/L		11/27/11 23:08	
Bromoform	ND		1	1.0	0.64	ug/L		11/27/11 23:08	
Bromomethane	ND		1	1.0	0.41	ug/L		11/27/11 23:08	
2-Butanone (MEK)	ND		1	10	0.57	ug/L		11/27/11 23:08	
Carbon disulfide	ND		1	1.0	0.13	ug/L		11/27/11 23:08	
Carbon tetrachloride	ND		1	1.0	0.13	ug/L		11/27/11 23:08	
Chlorobenzene	ND		1	1.0	0.15	ug/L		11/27/11 23:08	
Chloroethane	ND		1	1.0	0.29	ug/L		11/27/11 23:08	
Chloroform	ND		1	1.0	0.16	ug/L		11/27/11 23:08	
Chloromethane	ND		1	1.0	0.30	ug/L		11/27/11 23:08	
1,1-Dichloroethane	ND		1	1.0	0.15	ug/L		11/27/11 23:08	
1,2-Dichloroethane	ND		1	1.0	0.22	ug/L		11/27/11 23:08	
1,1-Dichloroethene	ND		1	1.0	0.19	ug/L		11/27/11 23:08	
1,2-Dichloropropane	ND		1	1.0	0.18	ug/L		11/27/11 23:08	
cis-1,3-Dichloropropene	ND		1	1.0	0.14	ug/L		11/27/11 23:08	
trans-1,3-Dichloropropene	ND		1	1.0	0.19	ug/L		11/27/11 23:08	
Ethylbenzene	ND		1	1.0	0.17	ug/L		11/27/11 23:08	
2-Hexanone	ND		1	10	0.41	ug/L		11/27/11 23:08	
Methylene Chloride	0.683	J	1	1.0	0.33	ug/L		11/27/11 23:08	
4-Methyl-2-pentanone (MIBK)	ND		1	10	0.32	ug/L		11/27/11 23:08	
Styrene	ND		1	1.0	0.11	ug/L		11/27/11 23:08	
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.18	ug/L		11/27/11 23:08	
Tetrachloroethene	ND		1	1.0	0.29	ug/L		11/27/11 23:08	
Toluene	ND		1	1.0	0.13	ug/L		11/27/11 23:08	
Trichloroethene	ND		1	1.0	0.17	ug/L		11/27/11 23:08	
Vinyl chloride	ND		1	1.0	0.22	ug/L		11/27/11 23:08	
Xylenes, Total	ND		1	2.0	0.28	ug/L		11/27/11 23:08	
1,1,1-Trichloroethane	ND		1	1.0	0.22	ug/L		11/27/11 23:08	
1,1,2-Trichloroethane	ND		1	1.0	0.27	ug/L		11/27/11 23:08	
Cyclohexane	ND		1	1.0	0.12	ug/L		11/27/11 23:08	
1,2-Dibromo-3-Chloropropane	ND		1	2.0	0.67	ug/L		11/27/11 23:08	
1,2-Dibromoethane	ND		1	1.0	0.24	ug/L		11/27/11 23:08	
Dichlorodifluoromethane	ND		1	1.0	0.31	ug/L		11/27/11 23:08	
cis-1,2-Dichloroethene	ND		1	1.0	0.17	ug/L		11/27/11 23:08	
trans-1,2-Dichloroethene	ND		1	1.0	0.19	ug/L		11/27/11 23:08	
Isopropylbenzene	ND		1	1.0	0.13	ug/L		11/27/11 23:08	
Methyl acetate	ND		1	10	0.38	ug/L		11/27/11 23:08	
Methyl tert-butyl ether	ND		1	5.0	0.17	ug/L		11/27/11 23:08	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1	1.0	0.28	ug/L		11/27/11 23:08	
1,2,4-Trichlorobenzene	ND		1	1.0	0.15	ug/L		11/27/11 23:08	
1,2-Dichlorobenzene	ND		1	1.0	0.13	ug/L		11/27/11 23:08	
1,3-Dichlorobenzene	ND		1	1.0	0.14	ug/L		11/27/11 23:08	
1,4-Dichlorobenzene	ND		1	1.0	0.13	ug/L		11/27/11 23:08	
Trichlorofluoromethane	ND		1	1.0	0.21	ug/L		11/27/11 23:08	
Dibromochloromethane	ND		1	1.0	0.18	ug/L		11/27/11 23:08	
Methylcyclohexane	ND		1	1.0	0.13	ug/L		11/27/11 23:08	

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 240-24666/5**

**Matrix: Water**

**Analysis Batch: 24666**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1,2-Dichloroethane-d4 (Surr)	112		63 - 129				11/27/11 23:08	1
4-Bromofluorobenzene (Surr)	90		66 - 117				11/27/11 23:08	1
Toluene-d8 (Surr)	105		74 - 115				11/27/11 23:08	1
Dibromofluoromethane (Surr)	110		75 - 121				11/27/11 23:08	1

**Lab Sample ID: LCS 240-24666/4**

**Matrix: Water**

**Analysis Batch: 24666**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LC S	LC S	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Acetone	20.0	18.2		ug/L		91	43 - 136	
Benzene	10.0	10.4		ug/L		104	83 - 112	
Bromodichloromethane	10.0	9.59		ug/L		96	72 - 121	
Bromoform	10.0	7.74		ug/L		77	40 - 131	
Bromomethane	10.0	6.95		ug/L		70	11 - 185	
2-Butanone (MEK)	20.0	17.5		ug/L		88	60 - 126	
Carbon disulfide	10.0	7.69		ug/L		77	62 - 142	
Carbon tetrachloride	10.0	8.25		ug/L		83	66 - 128	
Chlorobenzene	10.0	9.05		ug/L		91	85 - 110	
Chloroethane	10.0	7.82		ug/L		78	25 - 153	
Chloroform	10.0	10.8		ug/L		108	79 - 117	
Chloromethane	10.0	8.77		ug/L		88	44 - 126	
1,1-Dichloroethane	10.0	10.5		ug/L		105	82 - 115	
1,2-Dichloroethane	10.0	10.6		ug/L		106	71 - 127	
1,1-Dichloroethene	10.0	10.3		ug/L		103	78 - 131	
1,2-Dichloropropane	10.0	10.4		ug/L		104	81 - 115	
cis-1,3-Dichloropropene	10.0	7.81		ug/L		78	61 - 115	
trans-1,3-Dichloropropene	10.0	8.27		ug/L		83	58 - 117	
Ethylbenzene	10.0	9.03		ug/L		90	83 - 112	
2-Hexanone	20.0	17.9		ug/L		90	55 - 133	
Methylene Chloride	10.0	9.80		ug/L		98	66 - 131	
4-Methyl-2-pentanone (MIBK)	20.0	18.3		ug/L		92	63 - 128	
Styrene	10.0	8.11		ug/L		81	79 - 114	
1,1,2,2-Tetrachloroethane	10.0	9.52		ug/L		95	68 - 118	
Tetrachloroethene	10.0	9.64		ug/L		96	79 - 114	
Toluene	10.0	9.92		ug/L		99	84 - 111	
Trichloroethene	10.0	9.13		ug/L		91	76 - 117	
Vinyl chloride	10.0	7.67		ug/L		77	53 - 127	
Xylenes, Total	30.0	26.6		ug/L		89	83 - 112	
1,1,1-Trichloroethane	10.0	8.57		ug/L		86	74 - 118	
1,1,2-Trichloroethane	10.0	10.2		ug/L		102	80 - 112	
Cyclohexane	10.0	9.62		ug/L		96	54 - 121	
1,2-Dibromo-3-Chloropropane	10.0	8.60		ug/L		86	42 - 136	
1,2-Dibromoethane	10.0	9.35		ug/L		94	79 - 113	
Dichlorodifluoromethane	10.0	5.53		ug/L		55	19 - 129	
cis-1,2-Dichloroethene	10.0	9.68		ug/L		97	80 - 113	
trans-1,2-Dichloroethene	10.0	9.95		ug/L		100	83 - 117	
Isopropylbenzene	10.0	8.57		ug/L		86	75 - 114	
Methyl acetate	10.0	10.6		ug/L		106	58 - 131	

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 240-24666/4**

**Matrix: Water**

**Analysis Batch: 24666**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
Methyl tert-butyl ether	10.0	9.14		ug/L	91	52 - 144	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.0		ug/L	110	74 - 151	
1,2,4-Trichlorobenzene	10.0	8.45		ug/L	85	48 - 135	
1,2-Dichlorobenzene	10.0	8.99		ug/L	90	81 - 110	
1,3-Dichlorobenzene	10.0	8.40		ug/L	84	80 - 110	
1,4-Dichlorobenzene	10.0	8.32		ug/L	83	82 - 110	
Trichlorofluoromethane	10.0	6.78		ug/L	68	49 - 157	
Dibromochloromethane	10.0	9.04		ug/L	90	64 - 119	
Methylcyclohexane	10.0	9.83		ug/L	98	56 - 127	
m-Xylene & p-Xylene	20.0	17.6		ug/L	88	83 - 113	
o-Xylene	10.0	8.97		ug/L	90	83 - 113	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	110		63 - 129
4-Bromofluorobenzene (Surr)	99		66 - 117
Toluene-d8 (Surr)	108		74 - 115
Dibromofluoromethane (Surr)	103		75 - 121

**Lab Sample ID: 240-6075-2 MS**

**Matrix: Water**

**Analysis Batch: 24666**

**Client Sample ID: GW-111711-JK-86**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Acetone	ND		20.0	18.2		ug/L	91	33 - 145	
Benzene	ND		10.0	11.6		ug/L	116	72 - 121	
Bromodichloromethane	ND		10.0	10.6		ug/L	106	67 - 120	
Bromoform	ND		10.0	8.37		ug/L	84	32 - 128	
Bromomethane	ND		10.0	7.94		ug/L	79	10 - 186	
2-Butanone (MEK)	ND		20.0	17.8		ug/L	89	54 - 129	
Carbon disulfide	ND		10.0	9.34		ug/L	93	57 - 147	
Carbon tetrachloride	ND		10.0	7.99		ug/L	80	59 - 129	
Chlorobenzene	ND		10.0	9.98		ug/L	100	80 - 110	
Chloroethane	ND		10.0	8.99		ug/L	90	21 - 165	
Chloroform	ND		10.0	12.3	F	ug/L	123	76 - 118	
Chloromethane	ND		10.0	9.43		ug/L	94	33 - 132	
1,1-Dichloroethane	ND		10.0	11.6		ug/L	116	79 - 116	
1,2-Dichloroethane	ND		10.0	11.3		ug/L	113	68 - 129	
1,1-Dichloroethene	ND		10.0	11.2		ug/L	112	74 - 135	
1,2-Dichloropropane	ND		10.0	11.4		ug/L	114	78 - 115	
cis-1,3-Dichloropropene	ND		10.0	7.91		ug/L	79	51 - 110	
trans-1,3-Dichloropropene	ND		10.0	8.84		ug/L	88	46 - 116	
Ethylbenzene	ND		10.0	9.73		ug/L	97	75 - 116	
2-Hexanone	ND		20.0	18.2		ug/L	91	47 - 139	
Methylene Chloride	ND		10.0	10.7		ug/L	107	63 - 128	
4-Methyl-2-pentanone (MIBK)	ND		20.0	18.0		ug/L	90	56 - 131	
Styrene	ND		10.0	8.72		ug/L	87	71 - 117	
1,1,2,2-Tetrachloroethane	ND		10.0	9.72		ug/L	97	63 - 122	
Tetrachloroethene	0.32	J	10.0	10.6		ug/L	103	70 - 117	
Toluene	ND		10.0	11.0		ug/L	110	78 - 114	

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 240-6075-2 MS**

**Matrix: Water**

**Analysis Batch: 24666**

**Client Sample ID: GW-111711-JK-86**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Trichloroethene	ND		10.0	10.1		ug/L		101	66 - 120
Vinyl chloride	ND		10.0	8.48		ug/L		85	49 - 130
Xylenes, Total	ND		30.0	29.2		ug/L		97	76 - 116
1,1,1-Trichloroethane	ND		10.0	9.34		ug/L		93	68 - 121
1,1,2-Trichloroethane	ND		10.0	11.0		ug/L		110	75 - 115
Cyclohexane	ND		10.0	9.22		ug/L		92	49 - 123
1,2-Dibromo-3-Chloropropane	ND		10.0	9.23		ug/L		92	32 - 139
1,2-Dibromoethane	ND		10.0	9.88		ug/L		99	74 - 113
Dichlorodifluoromethane	ND		10.0	5.38		ug/L		54	17 - 128
cis-1,2-Dichloroethene	ND		10.0	10.7		ug/L		107	70 - 120
trans-1,2-Dichloroethene	ND		10.0	11.3		ug/L		113	80 - 119
Isopropylbenzene	ND		10.0	9.35		ug/L		94	68 - 116
Methyl acetate	ND		10.0	9.41 J		ug/L		94	47 - 130
Methyl tert-butyl ether	ND		10.0	9.73		ug/L		97	46 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	10.5		ug/L		105	70 - 152
1,2,4-Trichlorobenzene	ND		10.0	9.04		ug/L		90	38 - 138
1,2-Dichlorobenzene	ND		10.0	9.69		ug/L		97	75 - 111
1,3-Dichlorobenzene	ND		10.0	8.99		ug/L		90	73 - 110
1,4-Dichlorobenzene	ND		10.0	8.97		ug/L		90	75 - 110
Trichlorofluoromethane	ND		10.0	5.62		ug/L		56	46 - 157
Dibromochloromethane	ND		10.0	9.91		ug/L		99	56 - 118
Methylcyclohexane	ND		10.0	8.98		ug/L		90	49 - 127
m-Xylene & p-Xylene	ND		20.0	19.3		ug/L		97	75 - 117
o-Xylene	ND		10.0	9.92		ug/L		99	76 - 116
<hr/>									
Surrogate	MS		MS		Limits	D	%Rec	%Rec.	RPD
	%Recovery	Qualifier							
1,2-Dichloroethane-d4 (Surr)	115				63 - 129				
4-Bromofluorobenzene (Surr)	105				66 - 117				
Toluene-d8 (Surr)	112				74 - 115				
Dibromofluoromethane (Surr)	110				75 - 121				

**Lab Sample ID: 240-6075-2 MSD**

**Matrix: Water**

**Analysis Batch: 24666**

**Client Sample ID: GW-111711-JK-86**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Acetone	ND		20.0	16.7		ug/L		84	33 - 145	9	30
Benzene	ND		10.0	11.2		ug/L		112	72 - 121	4	30
Bromodichloromethane	ND		10.0	10.4		ug/L		104	67 - 120	2	30
Bromoform	ND		10.0	8.02		ug/L		80	32 - 128	4	30
Bromomethane	ND		10.0	7.40		ug/L		74	10 - 186	7	30
2-Butanone (MEK)	ND		20.0	17.7		ug/L		89	54 - 129	1	30
Carbon disulfide	ND		10.0	8.35		ug/L		84	57 - 147	11	30
Carbon tetrachloride	ND		10.0	7.68		ug/L		77	59 - 129	4	30
Chlorobenzene	ND		10.0	9.62		ug/L		96	80 - 110	4	30
Chloroethane	ND		10.0	8.43		ug/L		84	21 - 165	6	30
Chloroform	ND		10.0	11.5		ug/L		115	76 - 118	7	30
Chloromethane	ND		10.0	9.38		ug/L		94	33 - 132	1	30
1,1-Dichloroethane	ND		10.0	11.3		ug/L		113	79 - 116	3	30

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-6075-2 MSD

Matrix: Water

Analysis Batch: 24666

Client Sample ID: GW-111711-JK-86

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec.		RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier			%Rec	Limits		
1,2-Dichloroethane	ND		10.0	11.4		ug/L	114	68 - 129		1	30
1,1-Dichloroethene	ND		10.0	11.0		ug/L	110	74 - 135		2	30
1,2-Dichloropropane	ND		10.0	11.0		ug/L	110	78 - 115		4	30
cis-1,3-Dichloropropene	ND		10.0	7.85		ug/L	79	51 - 110		1	30
trans-1,3-Dichloropropene	ND		10.0	8.44		ug/L	84	46 - 116		5	30
Ethylbenzene	ND		10.0	9.25		ug/L	93	75 - 116		5	30
2-Hexanone	ND		20.0	18.8		ug/L	94	47 - 139		3	30
Methylene Chloride	ND		10.0	10.2		ug/L	102	63 - 128		5	30
4-Methyl-2-pentanone (MIBK)	ND		20.0	18.4		ug/L	92	56 - 131		2	30
Styrene	ND		10.0	8.30		ug/L	83	71 - 117		5	30
1,1,2,2-Tetrachloroethane	ND		10.0	9.99		ug/L	100	63 - 122		3	30
Tetrachloroethene	0.32	J	10.0	10.3		ug/L	100	70 - 117		3	30
Toluene	ND		10.0	10.5		ug/L	105	78 - 114		5	30
Trichloroethene	ND		10.0	9.97		ug/L	100	66 - 120		1	30
Vinyl chloride	ND		10.0	8.28		ug/L	83	49 - 130		2	30
Xylenes, Total	ND		30.0	28.2		ug/L	94	76 - 116		3	30
1,1,1-Trichloroethane	ND		10.0	8.96		ug/L	90	68 - 121		4	30
1,1,2-Trichloroethane	ND		10.0	10.6		ug/L	106	75 - 115		4	30
Cyclohexane	ND		10.0	9.09		ug/L	91	49 - 123		1	30
1,2-Dibromo-3-Chloropropane	ND		10.0	9.85		ug/L	99	32 - 139		6	30
1,2-Dibromoethane	ND		10.0	9.57		ug/L	96	74 - 113		3	30
Dichlorodifluoromethane	ND		10.0	5.16		ug/L	52	17 - 128		4	30
cis-1,2-Dichloroethene	ND		10.0	10.4		ug/L	104	70 - 120		3	30
trans-1,2-Dichloroethene	ND		10.0	10.7		ug/L	107	80 - 119		5	30
Isopropylbenzene	ND		10.0	9.02		ug/L	90	68 - 116		4	30
Methyl acetate	ND		10.0	9.14	J	ug/L	91	47 - 130		3	30
Methyl tert-butyl ether	ND		10.0	9.85		ug/L	99	46 - 144		1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	10.2		ug/L	102	70 - 152		3	30
1,2,4-Trichlorobenzene	ND		10.0	9.12		ug/L	91	38 - 138		1	30
1,2-Dichlorobenzene	ND		10.0	9.71		ug/L	97	75 - 111		0	30
1,3-Dichlorobenzene	ND		10.0	8.99		ug/L	90	73 - 110		0	30
1,4-Dichlorobenzene	ND		10.0	8.98		ug/L	90	75 - 110		0	30
Trichlorofluoromethane	ND		10.0	5.83		ug/L	58	46 - 157		4	30
Dibromochloromethane	ND		10.0	9.66		ug/L	97	56 - 118		3	30
Methylcyclohexane	ND		10.0	8.83		ug/L	88	49 - 127		2	30
m-Xylene & p-Xylene	ND		20.0	18.8		ug/L	94	75 - 117		3	30
o-Xylene	ND		10.0	9.44		ug/L	94	76 - 116		5	30
<hr/>											
Surrogate	MSD	MSD	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	110				63 - 129						
4-Bromofluorobenzene (Surr)	105				66 - 117						
Toluene-d8 (Surr)	110				74 - 115						
Dibromofluoromethane (Surr)	110				75 - 121						

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

## GC/MS VOA

### Analysis Batch: 24666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-6075-1	GW-111711-JK-85	Total/NA	Water	8260B	5
240-6075-2	GW-111711-JK-86	Total/NA	Water	8260B	6
240-6075-2 MS	GW-111711-JK-86	Total/NA	Water	8260B	7
240-6075-2 MSD	GW-111711-JK-86	Total/NA	Water	8260B	8
240-6075-3	GW-111711-JK-87	Total/NA	Water	8260B	9
240-6075-4	GW-111711-JK-88	Total/NA	Water	8260B	10
240-6075-5	GW-111711-JK-89	Total/NA	Water	8260B	11
240-6075-6	GW-111711-JK-90	Total/NA	Water	8260B	12
240-6075-7	GW-111711-JK-91	Total/NA	Water	8260B	13
240-6075-8	TRIP BLANK	Total/NA	Water	8260B	14
LCS 240-24666/4	Lab Control Sample	Total/NA	Water	8260B	15
MB 240-24666/5	Method Blank	Total/NA	Water	8260B	

## Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

**Client Sample ID: GW-111711-JK-85**

**Lab Sample ID: 240-6075-1**

Matrix: Water

Date Collected: 11/17/11 09:30

Date Received: 11/18/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	24666	11/28/11 00:34	RQ	TAL NC

**Client Sample ID: GW-111711-JK-86**

**Lab Sample ID: 240-6075-2**

Matrix: Water

Date Collected: 11/17/11 11:10

Date Received: 11/18/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	24666	11/28/11 00:56	RQ	TAL NC

**Client Sample ID: GW-111711-JK-87**

**Lab Sample ID: 240-6075-3**

Matrix: Water

Date Collected: 11/17/11 11:55

Date Received: 11/18/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	24666	11/28/11 02:21	RQ	TAL NC

**Client Sample ID: GW-111711-JK-88**

**Lab Sample ID: 240-6075-4**

Matrix: Water

Date Collected: 11/17/11 12:05

Date Received: 11/18/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	24666	11/28/11 02:42	RQ	TAL NC

**Client Sample ID: GW-111711-JK-89**

**Lab Sample ID: 240-6075-5**

Matrix: Water

Date Collected: 11/17/11 13:55

Date Received: 11/18/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	24666	11/28/11 03:04	RQ	TAL NC

**Client Sample ID: GW-111711-JK-90**

**Lab Sample ID: 240-6075-6**

Matrix: Water

Date Collected: 11/17/11 15:00

Date Received: 11/18/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	24666	11/28/11 03:25	RQ	TAL NC

**Client Sample ID: GW-111711-JK-91**

**Lab Sample ID: 240-6075-7**

Matrix: Water

Date Collected: 11/17/11 15:10

Date Received: 11/18/11 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	24666	11/28/11 03:47	RQ	TAL NC

## Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

### Client Sample ID: TRIP BLANK

Date Collected: 11/17/11 00:00  
Date Received: 11/18/11 09:15

### Lab Sample ID: 240-6075-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	24666	11/28/11 02:00	RQ	TAL NC

#### Laboratory References:

TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

## Certification Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 34891 EVERGREEN MANOR

TestAmerica Job ID: 240-6075-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica North Canton	ACCLASS	DoD ELAP		ADE-1437
TestAmerica North Canton	California	NELAC	9	01144CA
TestAmerica North Canton	Connecticut	State Program	1	PH-0590
TestAmerica North Canton	Florida	NELAC	4	E87225
TestAmerica North Canton	Georgia	Georgia EPD	4	N/A
TestAmerica North Canton	Illinois	NELAC	5	200004
TestAmerica North Canton	Kansas	NELAC	7	E-10336
TestAmerica North Canton	Kentucky	State Program	4	58
TestAmerica North Canton	Minnesota	NELAC	5	039-999-348
TestAmerica North Canton	Nevada	State Program	9	OH-000482008A
TestAmerica North Canton	New Jersey	NELAC	2	OH001
TestAmerica North Canton	New York	NELAC	2	10975
TestAmerica North Canton	Ohio	OVAP	5	CL0024
TestAmerica North Canton	Pennsylvania	NELAC	3	68-00340
TestAmerica North Canton	USDA	USDA		P330-11-00328
TestAmerica North Canton	Virginia	NELAC Secondary AB	3	460175
TestAmerica North Canton	West Virginia	West Virginia DEP	3	210
TestAmerica North Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## CONESTOGA-ROVERS &amp; ASSOCIATES

8615 W. Bryn Mawr Avenue  
Chicago, Illinois 60631  
(773)380-9933 phone  
(773)380-6421 fax

SHIPPED TO  
(Laboratory Name): TEST AMERICA - NORTH CHICAGO

REFERENCE NUMBER:

34891

PROJECT NAME: EVERGREEN MANOR

## CHAIN-OF-CUSTODY RECORD

SAMPLER'S SIGNATURE: J. McLaughlinPRINTED NAME: Tatjana Koldozitski

PARAMETERS

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.
1	1/17/11	0920	GW-111711-TRK-85
2		1110	-86
3		1155	-87
4		1205	-88
5		1355	-89
6		1500	-90
7		1510	-91
			TRIP BLANK
			✓

REMARKS

*Mishandled*

SAMPLE MATRIX	COUNTAINERS NO. OF	PARAMETERS
WATER	3	X
	9	X
	3	X
	3	X
	3	X
	3	X
	3	X
	3	X
	1	X

REMARKS

DAY  
\* ST.A.T. ON  
ALL SAMPLES

## TOTAL NUMBER OF CONTAINERS

19

RELINQUISHED BY: <u>J. McLaughlin</u>	DATE: 1/17/11	RECEIVED BY: <u>2</u>	DATE:
①	TIME: 1700		TIME:

RELINQUISHED BY: <u>J. McLaughlin</u>	DATE:	RECEIVED BY: <u>3</u>	DATE:
②	TIME:		TIME:

RELINQUISHED BY: <u>J. McLaughlin</u>	DATE:	RECEIVED BY: <u>4</u>	DATE:
③	TIME:		TIME:

## METHOD OF SHIPMENT:

AIR BILL No. 873 0958 2983

White	-Fully Executed Copy	SAMPLE TEAM: <u>Koldozitski</u>	RECEIVED FOR LABORATORY BY: <u>Boogaart</u>
Yellow	-Receiving Laboratory Copy		
Pink	-Shipper Copy		
Goldenrod	-Sampler Copy		

1001-0(SOURCE)GN-C004

11/29/2011

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15

**TestAmerica Cooler Receipt Form/Narrative****Lot Number:** #6075**North Canton Facility**Client Cone Stagn - Rovers

Project \_\_\_\_\_

By: Tisha Gaskins

(Signature)

Cooler Received on 11/18/11Opened on 11/18/11FedEx  UPS  DHL  FAS  Stetson  Client Drop Off  TestAmerica Courier  Other \_\_\_\_\_TestAmerica Cooler # \_\_\_\_\_ Multiple Coolers  Foam Box  Client Cooler  Other \_\_\_\_\_1. Were custody seals on the outside of the cooler(s)? Yes  No  Intact? Yes  No  NA 

If YES, Quantity \_\_\_\_\_ Quantity Unsalvageable \_\_\_\_\_

Yes  No  NA 

Were custody seals on the outside of cooler(s) signed and dated?

Yes  No 

Were custody seals on the bottle(s)?

Yes  No 

If YES, are there any exceptions? \_\_\_\_\_

Yes  No 

2. Shippers' packing slip attached to the cooler(s)?

Relinquished by client? Yes  No 3. Did custody papers accompany the sample(s)? Yes  No Yes  No 

4. Were the custody papers signed in the appropriate place?

5. Packing material used: Bubble Wrap  Foam  None  Other \_\_\_\_\_6. Cooler temperature upon receipt 0.4 °C See back of form for multiple coolers/tempMETHOD: IR  Other COOLANT: Wet Ice  Blue Ice  Dry Ice  Water  None Yes  No 

7. Did all bottles arrive in good condition (Unbroken)?

Yes  No 

8. Could all bottle labels be reconciled with the COC?

Yes  No 

9. Were sample(s) at the correct pH upon receipt?

Yes  No  NA 

10. Were correct bottle(s) used for the test(s) indicated?

Yes  No 

11. Were air bubbles &gt;6 mm in any VOA vials?

Yes  No  NA 

12. Sufficient quantity received to perform indicated analyses?

Yes  No 13. Was a trip blank present in the cooler(s)? Yes  No  Were VOAs on the COC? Yes  No Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal  Voice Mail  Other 

Concerning \_\_\_\_\_

**14. CHAIN OF CUSTODY**

The following discrepancies occurred:

**15. SAMPLE CONDITION**

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.

Sample(s) \_\_\_\_\_ were received in a broken container.

Sample(s) \_\_\_\_\_ were received with bubble &gt;6 mm in diameter. (Notify PM)

**16. SAMPLE PRESERVATION**

Sample(s) \_\_\_\_\_ were further preserved in Sample

Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO<sub>3</sub>; Sulfuric Acid Lot# 110410-H<sub>2</sub>SO<sub>4</sub>; Sodium

Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-

(CH<sub>3</sub>COO)<sub>2</sub>ZN/NaOH. What time was preservative added to sample(s)? \_\_\_\_\_

Client ID	pH	Date	Initials

# **TestAmerica Cooler Receipt Form/Narrative North Canton Facility**

### **Discrepancies Cont'd.**

## Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-6075-1

**Login Number: 6075**

**List Source: TestAmerica North Canton**

**List Number: 1**

**Creator: Gambone, Mike**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**ATTACHMENT B**

**DATA QUALITY ASSESSMENT AND VALIDATION MEMORANDUM**



**CONESTOGA-ROVERS  
& ASSOCIATES**

8615 W. Bryn Mawr Avenue, Chicago, Illinois 60631  
Telephone: (773) 380-9933 Fax: (773) 380-6421  
[www.CRAworld.com](http://www.CRAworld.com)

---

## MEMORANDUM

---

TO: Ken Duwal REF. NO.: 034891

FROM: Julie Czech/JC/9 *Z* DATE: December 8, 2011

RE: **Data Quality Assessment and Validation for Groundwater Samples Collected at the Evergreen Manor Site in Roscoe Township, Illinois**

---

The following details the data quality assessment and validation conducted for the groundwater samples collected in November 2011 at the Evergreen Manor Site in Roscoe Township, Illinois. The samples, identified in Table 1, were analyzed for the parameter listed in Table 2 by TestAmerica Laboratories, Inc., of North Canton, Ohio. The quality assurance criteria used to assess the data were established by the QAPP.<sup>1</sup>

### Holding Time Period

The holding time period is presented in Table 3. The sample analyses were completed within the required holding time period.

### Method Blank Sample Data

Method blank sample data were evaluated to verify that analytes detected in the investigative samples were not attributable to laboratory conditions or procedures. The method blank sample data were acceptable.

### Surrogate Compound Analyses

Method performance on individual samples was evaluated by the percent recovery data of surrogate compound spikes. The surrogate compound percent recovery data for all samples were acceptable.

### Laboratory Control Sample (LCS) Analyses

The accuracy of the analyses was assessed by the percent recovery data from the LCS analyses. The LCS percent recovery data were acceptable.

### Matrix Spike/Matrix Spike Duplicate (MS/MSD) Sample Analyses

To assess the accuracy and precision of the analytical methods relative to the sample matrices, MS/MSD percent recoveries and RPDs were determined. The MS/MSD percent recovery and RPD data were acceptable.

---

<sup>1</sup> Application of quality assurance evaluation criteria was consistent with the relevant criteria in "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", EPA-540/R-99/008, October 1999.

**Field Quality Assurance/Quality Control (QA/QC)**

The field QA/QC analyses associated with these samples consisted of one field equipment blank, one trip blank, and one field duplicate sample set.

To monitor the effectiveness of field equipment decontamination procedures, a field equipment blank sample was collected and analyzed. The chloroform data for sample GW-111711-JK-88 should be qualified as non-detect [U(1.0 $\mu$ g/L)]. The remaining field equipment blank sample data were acceptable.

To monitor potential sample cross-contamination by VOCs during sample transportation and storage, a trip blank sample was submitted with each cooler containing investigative samples. The trip blank sample data were acceptable.

Overall precision for the sampling and analysis event was evaluated by field duplicate sample data. Table 4 presents the results of analytes detected in the investigative and field duplicate sample. An RPD of 50% was used as an advisory limit for analytes detected in both the investigative and duplicate samples at concentrations greater than or equal to 5 times the reporting limit. The RPD data indicate that the overall precision of the sampling and analysis event was acceptable.

**Overall Assessment**

The data were found to exhibit acceptable levels of accuracy and precision and are suitable for their intended use with the qualifications presented herein.

**Attachments**

**TABLE 1**

**SAMPLE IDENTIFICATION NUMBERS**

**GROUNDWATER SAMPLES**

**EVERGREEN MANOR SITE**

**ROSCOE TOWNSHIP, ILLINOIS**

GW-111711-JK-85  
GW-111711-JK-86  
GW-111711-JK-87  
GW-111711-JK-88  
GW-111711-JK-89  
GW-111711-JK-90  
GW-111711-JK-91

TABLE 2

SUMMARY OF ANALYTICAL METHODS  
EVERGREEN MANOR SITE  
ROSCOE TOWNSHIP, ILLINOIS

<i>Parameter</i>	<i>Analytical Method</i> <sup>1</sup>
Volatile Organic Compounds (VOCs)	SW-846 8260B

<sup>1</sup> Methods were referenced from:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA SW-846,  
3rd Edition with promulgated Updates, November 1986.

TABLE 3

HOLDING TIME PERIODS  
EVERGREEN MANOR SITE  
ROSCOE TOWNSHIP, ILLINOIS

<i>Parameter</i>	<i>Holding Time Period</i>
VOCs	- 14 days from sample collection to completion of analysis

TABLE 4

**SUMMARY OF DETECTED ANALYTES FROM FIELD DUPLICATE SAMPLES**  
**GROUNDWATER SAMPLES**  
**EVERGREEN MANOR SITE**  
**ROSCOE TOWNSHIP, ILLINOIS**

<i>Analyte</i>	<i>Investigative Sample</i> <i>GW-111711-JK-90</i>	<i>Duplicate Sample</i> <i>GW-111711-JK-91</i>	<i>RPD</i> <sup>1</sup>	<i>Qualifier</i>
	( <i>µg/L</i> )	( <i>µg/L</i> )		
Tetrachloroethene	0.93 J <sup>2</sup>	0.96 J	3.2	None
1,1,1-Trichloroethane	0.63 J	0.70 J	11	None
Trichloroethene	1.4	1.6	13	None

<sup>1</sup> RPD - Relative Percent Difference

<sup>2</sup> J - Estimated quantity